

CHAPTER FOUR – RECOMMENDED DEVELOPMENT CONCEPT

Following consideration of each alternative described in the previous sections and discussion with the airport sponsor (Cameron County), the Texas Department of Transportation (TxDOT) Aviation Division, and the planning advisory committee (PAC), an overall development concept has been recommended for Cameron County Airport (PIL). The concept, which is depicted on **Exhibits 4A and 4B**, plans for airside needs and landside deficiencies that were determined in the previous sections. The recommended development concept illustrates a plan to bring the airport into compliance with existing B-II design standards while planning for long-range needs at the airport, including a potential transition to a C-II design standard.

AIRSIDE

PRIMARY RUNWAY 13-31

Design Standards | Runway 13-31 is planned to be improved from existing runway design code (RDC) B-II-5000 standards to ultimate C-II-4000 design standards in the future. These design standards will plan for continued use by both piston aircraft and larger/faster business jet aircraft on a regular basis, with lower visibility minimums than what exists today. The C-II-4000 design standards will apply when there are 500 documented operations by aircraft in this category, such as a Bombardier Challenger 600, which has been identified as the airport's ultimate critical aircraft.

Runway Dimensions | Runway 13-31 is currently 8,001 feet long and 150 feet wide, which exceeds both the existing and ultimate design standards for runway width. The runway is planned to be reduced in width to 100 feet, which meets the ultimate C-II design standard.

As detailed in Chapter Three in the Runway Length section, the length of Runway 13-31 also exceeds what is necessary to accommodate aircraft up to and including large business jets, such as a Gulfstream 650. Moreover, given the current federal funding climate, TxDOT's Aviation Division¹ will not continue to support capital projects, such as pavement rehabilitation, that are over and above what is necessary and justified. For these reasons, the development concept includes a plan to reduce the length of Runway 13-31 to 6,000 feet. At this length, the runway is still capable of supporting all aircraft anticipated to use the airport now and in the future, including some of the larger business jets.

To accomplish this, the Runway 13 threshold is planned to be relocated 2,056 feet to the east, with 55 feet of new pavement constructed on the Runway 31 end, effectively decoupling the runways and allowing for an unimpeded runway safety area (RSA).

Pavement Strength | The existing pavement strength rating for Runway 13-31 is 105,000 pounds single wheel loading (S), 135,000 pounds dual wheel (D), and 230,000 pounds dual tandem wheel (2D). These strength ratings are sufficient, and no pavement strengthening is planned for this runway.

¹ Texas is a block grant state, so TxDOT Aviation accepts and administers federal grants from the FAA's Airport Improvement Program (AIP) for distribution to participating airports in the state, including PIL.

Blast Pad | A blast pad is planned to be included on Runway 13 to reduce the erosive effect of jet blast and propeller wash. The dimensions of the planned blast pad are 150 feet long by 100 feet wide, in accordance with ultimate C-II design standards.

Safety Areas | Analysis in Chapter Three indicated that the existing runway safety area (RSA), runway object free area (ROFA), and runway obstacle free zone (ROFZ) meet FAA design standards and are free from obstructions, based on available imagery. With the transition to C-II design standards, the RSA and ROFA increase in size, resulting in the introduction of an obstruction (the wind cone and segmented circle) into the ROFA. To meet ultimate design standards and protect these safety areas, the plan includes a relocation of this equipment to the northwest, on the opposite side of Taxiway A. Each of the safety areas referenced above is located on airport property and fully controlled by the sponsor.

A portion of the Runway 31 runway protection zone (RPZ) extends off airport property. As described in the previous chapter, the FAA prefers RPZs to be owned by the airport sponsor and free from incompatible land uses, such as buildings or roads; however, this is not a requirement. The 12.9 acres of land within the Runway 31 RPZ that is not controlled by the airport is associated with the Laguna Atascosa National Wildlife Refuge, which is owned and operated by the U.S. Fish & Wildlife Service. Because this is protected land that is free of incompatible uses, the plan does not include a recommendation to acquire this property or obtain an easement over it.

Runway Lighting | Runway 13-31 is equipped with medium intensity runway lighting (MIRL); however, this equipment has reached the end of its useful life. New MIRL, along with a new electrical vault, are planned to be installed.

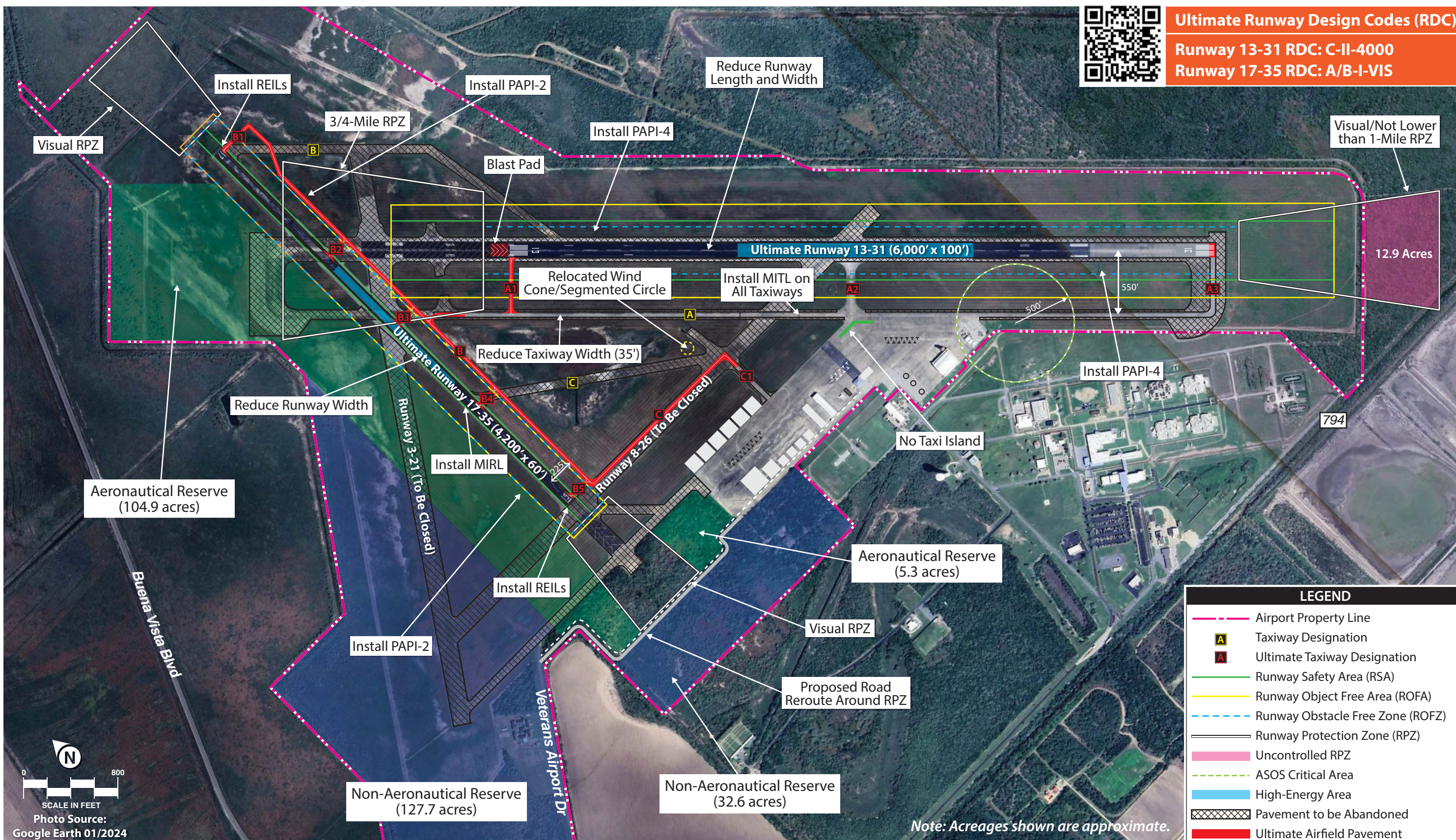
CROSSWIND RUNWAY 17-35

Design Standards | Crosswind Runway 17-35 is currently classified as an A/B-I-VIS runway, meaning it is designed to accommodate piston-powered aircraft and smaller jets and turboprops. The “VIS” portion of the RDC indicates that each runway end is visual only, with no published instrument approach procedures. This classification is considered sufficient for this runway throughout the planning period, and no changes to the RDC are included in the plan.

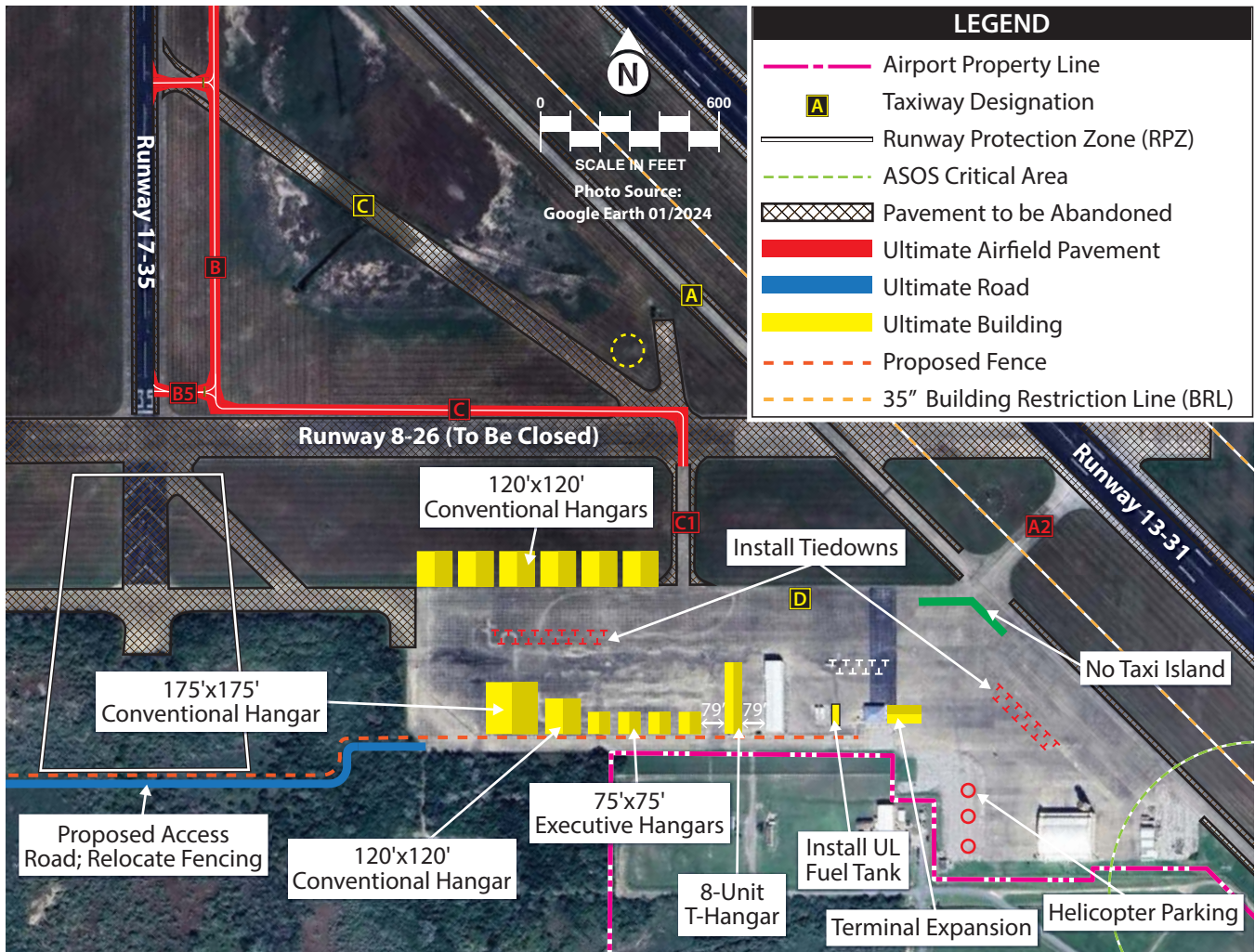
Runway Dimensions | Runway 17-35 is 4,200 feet long by 75 feet wide. No changes to the runway length are planned. The 75-foot width exceeds existing/ultimate A/B-I design standards, which call for a 60-foot-wide runway. As such, the plan includes a reduction to the width of Runway 17-35 to 60 feet, which could occur during the next rehabilitation project.

Pavement Strength | The existing pavement strength rating for Runway 17-35 is 30,000 pounds S, 45,000 pounds D, and 90,000 pounds 2D. This pavement strength is suitable for the types of aircraft using this runway and is planned to be maintained.

Runway Lighting | Runway 17-35 is not currently equipped with runway edge lighting. New MIRL is planned to be installed to enhance safety and the runway’s utility during low visibility conditions.



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RUNWAYS 3-21 AND 8-26

As discussed in the previous chapter, Runways 3-21 and 8-26 are considered “additional” runways and are therefore not eligible for grant funding assistance. These runways are planned to be decommissioned, with the pavement marked with X’s to indicate they are no longer active. Removal of the pavement is not considered feasible due to cost.

TAXIWAYS

The taxiway system serving Cameron County Airport primarily consists of parallel Taxiway A, which serves Runway 13-31, and Taxiway D, which serves the landside area. Taxiway B, which connects to Runway 17, and Taxiway C, which spans the midfield area between Runway 17-35 and Runway 8-26, are in disrepair and are no longer used. The plan calls for Taxiways B and C to be officially closed and marked with X’s.

Taxiway A, the airport’s only full-length parallel taxiway, is 75 feet wide, which exceeds the taxiway design group (TDG) 2A standard of 35 feet. The recommended concept includes a plan to narrow Taxiway A to 35 feet, along with abandonment of the taxiway pavement to the northwest, prior to its intersection with Runway 17-35. This is due to the relocation of the Runway 13 threshold. A new threshold connector, A1, is planned to be constructed to serve the relocated Runway 13 threshold.

As mentioned above, existing Taxiway B is planned to be closed; however, the concept depicts a plan to construct a parallel taxiway to Runway 17-35 (ultimate Taxiway B). The construction of this taxiway would eliminate the need for pilots to back-taxi to access Runway 17, which improves both safety and capacity on this runway. The Runway 35 threshold is planned to be served by ultimate Taxiway B5 and Taxiway C. Ultimate Taxiway C is a new taxiway planned to function as landside access from Runway 17-35. A portion of decommissioned Runway 8-26 is intended to be used as feasible during the construction of this taxiway. All taxiways serving Runway 17-35 are planned to be 25 feet wide, in accordance with TDG 1A standards.

A no-taxi island marking is planned on the apron at the entrance to ultimate Taxiway A2 to resolve the direct-access condition that exists from the terminal apron to Runway 13-31.

Medium intensity taxiway lighting (MITL) is planned to be installed on existing and proposed taxiway pavement.

The plan includes a redesignation of the taxiway system per FAA Engineering Brief No. 89, *Taxiway Nomenclature Convention*. Assigning taxiway designations makes it easier and safer for pilots to navigate the airfield. Taxiway designations should be simple and logical, using letters for parallel taxiways and two-character alphanumeric designations for connecting taxiways. Connecting taxiways between Runway 13-31 and parallel Taxiway A are identified as A1, A2, and A3, beginning at the north end of the runway. Similarly, the planned parallel taxiway serving Runway 17-35 included connectors B1 through B5, beginning on the north end. Redesignating the taxiway system will require updating the airfield location/directional signage system.

VISUAL APPROACH AIDS

Runway 13-31 is equipped with a two-box precision approach path indicator (PAPI-2) system on each runway end. The plan calls for an upgrade to four-box systems (PAPI-4s), which are recommended for runways that regularly accommodate jets, on each runway end. The runway end identifier lights (REILs) already in place on this runway are planned to remain, with the REILs at each runway end relocated when the runway threshold is moved. Runway 17-35, which does not currently provide any visual aids, is planned to be equipped with PAPI-2s and REILs at each end.

INSTRUMENT APPROACH PROCEDURES

Currently, PIL has two instrument approach procedures: a localizer performance with vertical guidance (LPV) global positioning system (GPS) with 1 ¼-mile visibility minimums to Runway 13 and a circling approach (VOR-A). The circling approach is only available for daytime use.

Consideration has been given to the inclusion of improved instrument approach procedures with lower visibility minimums on the primary runway. The plan includes the potential for reduced minimums on Runway 13 (lower than one-mile but not lower than ¾-mile) and the implementation of a GPS instrument approach (one-mile minimums) to Runway 31, pending airspace analysis and obstruction removal as needed. Prior to any changes to the existing approach or introduction of a new approach, an aeronautical survey will likely need to be conducted to provide current obstruction data. The airport sponsor should coordinate with the FAA using the Instrument Flight Procedures (IFP) Information Gateway² to request new/improved instrument approaches.

WEATHER REPORTING EQUIPMENT

The airport is equipped with an automated surface observing system (ASOS) located east of the landside area. This equipment is planned to remain in place; however, there are several structures located within the equipment's 500-foot critical area. The airport sponsor should confirm that these structures are not interfering with any of the weather sensors, and either relocate the structures or raise the sensors if signal interference is present. PIL is also equipped with a lighted wind cone and segmented circle, which are planned to be relocated to new site outside of the ultimate ROFA.

LANDSIDE

Hangars | Future landside development is illustrated on **Exhibit 4B** and identifies locations for expanded hangar storage capacity, including new T-hangars, executive hangars, and conventional hangars to meet potential future demand. Cameron County Airport currently offers approximately 40,600 square feet (sf) of aircraft storage, with the future need increasing to 118,300 sf by the long term. In total, the recommended development concept shows approximately 166,325 sf of new aircraft storage, which exceeds the long-term need identified in Chapter Three but provides greater flexibility for long-range landside development planning.

² Instrument Flight Procedures Information Gateway (https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/)

On the south side of the terminal apron, west of the existing T-hangar, an additional 8-unit T-hangar is planned, along with four 75-foot by 75-foot executive box hangars. Two conventional hangars, one 120 feet by 120 feet and the other 175 feet by 175 feet, are also planned for the south side of the apron. Additional development is planned for the north side of the apron. This includes a series of 120-foot by 120-foot conventional hangars, intended to store large or multiple aircraft. As there are no existing facilities in this area, utility expansion including electrical, water, and sewer would be necessary prior to development.

It should be noted that the hangar layouts depicted are conceptual. The types, sizes, and locations for all future hangar development should be dictated by demand and the needs of each hangar developer and its customers. The conceptual layout is intended to be used as a guide for the airport sponsor when considering new landside facility developments. All new hangar construction is subject to an FAA 7460-1 airspace analysis and may require modifications in height or location or other mitigative actions to avoid airspace penetrations.

An ultimate building restriction line (BRL) is depicted on the exhibit. The BRL is based on Title 14 Code of Federal Regulations (CFR) Part 77 primary and transitional surface clearance requirements and identifies suitable building locations on the airport; however, the BRL is not a standard. Rather, it functions as a guideline to use when planning vertical infrastructure on the airport. None of the existing or proposed hangars are located inside the BRL.

Apron and Aircraft Parking | There are approximately 108,000 square yards (sy) of public apron area available at PIL, with 10 marked aircraft tiedowns. As determined in the previous chapter, it is not anticipated that additional aircraft parking apron will be needed through the planning period, and planned hangars are assumed to utilize the existing apron pavement. The recommended development concept also includes additional aircraft parking, both for fixed wing aircraft and helicopters. Fixed wing tiedowns are planned on both the east and west sides of the apron, and three helicopter parking spaces are planned west of the existing maintenance hangar.

Terminal Building | The terminal building offers approximately 2,600 sf of space, which may become constrained over time, as shown in the previous chapter. The plan allows for a 5,000 sf expansion of the terminal to the east, as demand dictates.

Vehicle Access and Parking | Veterans Airport Drive provides access to the airport. The road runs northeast from Buena Vista Boulevard before turning to the east, where abandoned taxiway pavement has been repurposed for use as the access road. Prior to reaching the landside facilities, the road passes through the Runway 35 RPZ. As mentioned above, the FAA prefers RPZs to be clear of incompatible uses, including public roads. As shown on **Exhibit 4B**, the plan includes a reroute of the access road outside of the RPZ, if feasible.

The airport has a paved parking area adjacent to the terminal with seven marked vehicle parking spaces. Options for expanded/additional dedicated public parking areas were considered in the previous chapter; however, it was ultimately determined that existing and new tenants will likely continue to park near their hangar. In addition to the cost to construct new parking areas, there is a local desire to maintain a single access point to the airside, due to the airport's proximity to the Port Isabel Detention Center. Public parking areas would require additional access roads, fencing, and gates, which would result in multiple access points that could pose a security issue.

Fuel Storage | PIL currently has two aboveground fuel tanks with capacities of 15,000 gallons of Jet A fuel and 10,000 gallons of 100LL fuel. The tanks are located west of the terminal building. Both are sufficient in capacity, and there are no plans to upgrade or increase the size of either tank. The plan does, however, include the installation of a third tank, as dictated by demand, to allow for the addition of unleaded aviation fuel, which has recently been approved by the FAA.

Perimeter Fencing | The airport is enclosed by fencing that includes both motorized and pedestrian gates. A portion of the fence on the south side of the airfield near Veterans Airport Drive is planned to be reconfigured if the access road is rerouted.

Development Reserve Land | Cameron County Airport encompasses approximately 826 acres. The majority of this area has been developed for aeronautical use (both airside and landside); however, with the abandonment of two runways and associated taxiways, there is opportunity for redevelopment in these areas. **Exhibit 4A** depicts areas on the south and west sides of airport property that could be developed for future aviation use, or for revenue-generating non-aviation use. Shown in green shading, approximately 104.9 acres along the west side of Runway 17-35 have been set aside for potential aeronautical development, should the need arise. An additional 5.3 acres west of the existing landside area also have aeronautical development potential.

Areas that are farther removed from the airfield have the potential to be developed with non-aeronautical facilities, provided they are compatible with airport operations. Examples of these facilities include industrial parks, storage facilities, or gas stations. Approximately 127.7 acres of airport property, shown in blue shading, have been set aside for potential non-aeronautical development.

AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION

The primary objective of this section is to provide Cameron County and its airport administration with recommendations for future improvements and processes that promote suitable principles in addressing airport operations and aviation demand. By making sustainability a priority in the planning process and identifying best management practices, the airport can become a more environmentally friendly economic hub.

REGULATORY GUIDELINES

FAA Modernization and Reform Act of 2012 (FMRA) | The FMRA, which amended Title 49 United States Code (USC), included several changes to the Airport Improvement Program (AIP). Two of these changes are related to recycling, reuse, and waste reduction at airports:

- Section 132(b) of the FMRA expanded the definition of airport planning to include “developing a plan for recycling and minimizing the generation of airport solid waste, consistent with applicable State and local recycling laws, including the cost of a waste audit.”

- Section 133 of the FMRA added a provision that requires an airport that has or plans to prepare a master plan, and that receives AIP funding for an eligible project, to ensure the new or updated master plan addresses issues related to solid recycling at the airport, including the following:
 - The feasibility of solid waste recycling at the airport
 - Minimizing the generation of solid waste at the airport
 - Operation and maintenance requirements
 - A review of waste management contracts
 - The potential for cost savings or the generation of revenue

State of Texas Solid Waste Management | *Texas Administrative Code*, Title 30, Part 1, Chapter 330, *Municipal Solid Waste*,³ was adopted to regulate waste management. This document provides policy and procedural guidance to state, substate, and local agencies in the proper management of solid waste and outlines sound methods of solid waste management and disposal for state, substate, and local agencies.

The Texas Commission on Environmental Quality (TCEQ) oversees the state's solid waste management implementation.⁴ The Land Department within the TCEQ oversees waste management, recycling, reduction, and reuse, as well as cleanups and remediation. Duties assigned to the Land Department include overseeing the following:

- Processing, storage, transportation, and disposal of waste
- Permits, registrations, and compliance
- Household, industrial, municipal, and radioactive waste
- Septic systems, sludge, dredge, and injection

Duties assigned to the Recycling, Reducing, and Reusing office include overseeing the following:

- Recycling operations and composting
- Home and business resources
- Fats, oils, and grease
- Automotive and electronic waste
- Exchange network for business and industry

SOLID WASTE

Airport sponsors typically have purview over waste-handling services in facilities they own and operate, such as passenger terminal buildings, hangars, aircraft rescue and firefighting (ARFF) stations, and maintenance facilities. Tenants of airport-owned buildings/hangars or tenants that own their facilities are typically responsible for coordinating their own waste-handling services.

³ Texas Administrative Code ([https://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=330&rl=103](https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=330&rl=103))

⁴ Texas Commission on Environmental Quality, Land, Permitting and Managing Waste Disposal, Cleanups and Other Land-Based Activities (https://www.tceq.texas.gov/agency/land_main.html)

For airports, waste can generally be divided into eight categories:⁵

- **Municipal solid waste (MSW)** is more commonly known as trash or garbage and consists of everyday items that are used and then discarded, such as product packaging.
- **Construction and demolition (C&D) waste** is considered non-hazardous trash resulting from land clearing, excavation, demolition, and renovation or repair of structures, roads, and utilities. C&D waste includes concrete, wood, metal, drywall, carpet, plastic, pipe, cardboard, and salvaged building components. C&D waste is also generally labeled MSW.
- **Green waste** is a form of MSW yard waste that consists of tree, shrub, and grass clippings, as well as leaves, weeds, small branches, seeds, and pods.
- **Food waste** includes unconsumed food products or waste generated and discarded during food preparation and is also considered MSW.
- **Deplaned waste** is waste removed from passenger aircraft. Deplaned waste includes bottles, cans, mixed paper (i.e., newspapers, napkins, and paper towels), plastic cups, service ware, food waste, and food-soiled paper/packaging.
- **Lavatory waste** is a special waste that is emptied through a hose and pumped into a lavatory service vehicle. The waste is then transported to a triturator⁶ facility for pretreatment prior to discharge in the sanitary sewage system. Chemicals in lavatory waste can present environmental and human health risks if mishandled; therefore, caution must be taken to ensure lavatory waste is not released to the public sanitary sewage system prior to pretreatment.
- **Spill clean and remediation wastes** are special wastes generated during cleanup of spills and/or remediation of contamination from several types of sites on an airport.
- **Hazardous wastes** are governed by the *Resource Conservation and Recovery Act* (RCRA) and the regulations in Title 40 CFR Subtitle C, Parts 260 to 270. The U.S. Environmental Protection Agency (EPA) developed less stringent regulations for certain hazardous waste (universal waste), as described in 40 CFR Part 237, *The Universal Waste Rule*.

As shown on **Exhibit 4C**, there are multiple areas where an airport would potentially contribute to the waste stream, including the passenger terminal building, on-airport tenants (e.g., fixed base operators [FBOs], airport maintenance building, etc.), hangars, aircraft ground support equipment, and airport construction projects. To create a comprehensive waste reduction and recycling plan for the airport, all potential inputs must be considered.

EXISTING SERVICES

The airport's fixed base operator (FBO) manages the airport's solid waste through a third-party contract. Currently, there is no recycling program established at the airport.

⁵ FAA, Recycling, Reuse, and Waste Reduction at Airports, April 24, 2013

⁶ A triturator turns lavatory waste into fine particulates for further processing.

AIRPORT WASTE STREAMS

AIRPORT AREA

POTENTIAL INPUTS

POTENTIAL OUTPUTS

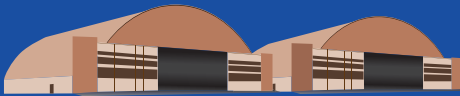
AIRFIELDS



Aircraft
Operations

Runway Rubber
Green Waste

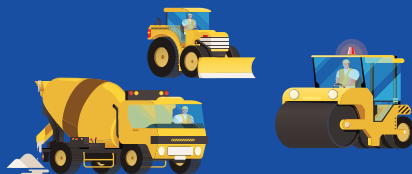
HANGARS



Goods
Movements

Plastic, Wood,
Vehicle Waste
(Tires & Fluids)

AIRPORT CONSTRUCTION



Construction
Re-Construction
Demolition

Reused Concrete
Reused Asphalt
Vehicle Waste
Soils, Building Materials
Wood, General Waste

Source: Recycling, Reuse, and Waste Reduction at Airports, FAA (April 24, 2013)

SOLID WASTE MANAGEMENT SYSTEM

Airports generally utilize either a centralized or a decentralized waste management system. The differences between the two methods are described below and summarized on **Exhibit 4D**.

- Centralized waste management system** | Under a centralized waste management system, the airport provides receptacles for the collection of waste, recyclable materials, and/or compostable materials and contracts for their removal by a single local provider.⁷ A centralized waste management system allows for more participation from airport tenants who may not be incentivized to recycle on their own and can reduce the overall cost of service for all involved. A centralized strategy can be inefficient for some airports, as it requires more effort and oversight on the part of airport management; however, the centralized system is advantageous in that it involves fewer working components in the overall management system of the solid waste and recycling efforts. It also allows greater control by the airport sponsor over the type, placement, and maintenance of dumpsters, thereby saving space and eliminating the need for tenants to have individual containers.
- Decentralized waste management system** | Under a decentralized waste management system, the airport provides waste containers and contracts for the hauling of waste materials in airport-operated spaces only; airport tenants (such as FBOs, retail shops, and others) manage the waste from their leased spaces with separate contracts, billing, and hauling schedules. A decentralized waste management system can increase the number of receptacles on airport property and the number of trips by a waste collection service provider if tenants' and the airport's collection schedules differ.

GOALS AND RECOMMENDATIONS

Solid Waste and Recycling Goals | Table 4A outlines objectives that could help reduce waste generation and increase recycling efforts at Cameron County Airport. To increase the effectiveness of tracking progress at the airport, a baseline state of all suggested metrics should be established to provide a comparison over time.

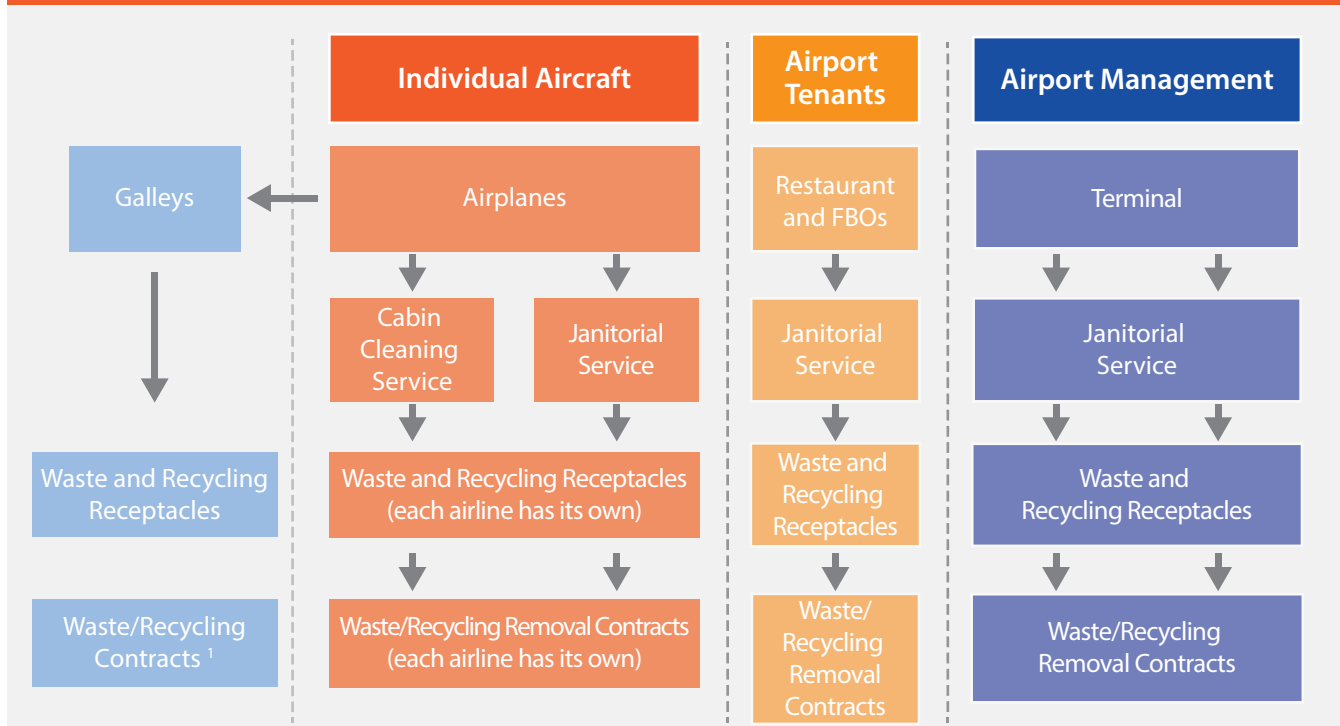
TABLE 4A | Waste Management and Recycling Goals

Goals	Objectives
Create a centralized waste management system	<ul style="list-style-type: none"> Audit existing waste management practices. Improve waste and data management.
Create a recycling program	<ul style="list-style-type: none"> Implement recycling marketing and promotion efforts at the FBO. Require recycling services in all areas of the airport. Incorporate recycling requirements and/or recommendations into tenant lease agreements. Require contractors to implement strategies to reduce, reuse, and recycle C&D waste. Eliminate purchase of items that are not recyclable (i.e., Styrofoam, plastic bags).

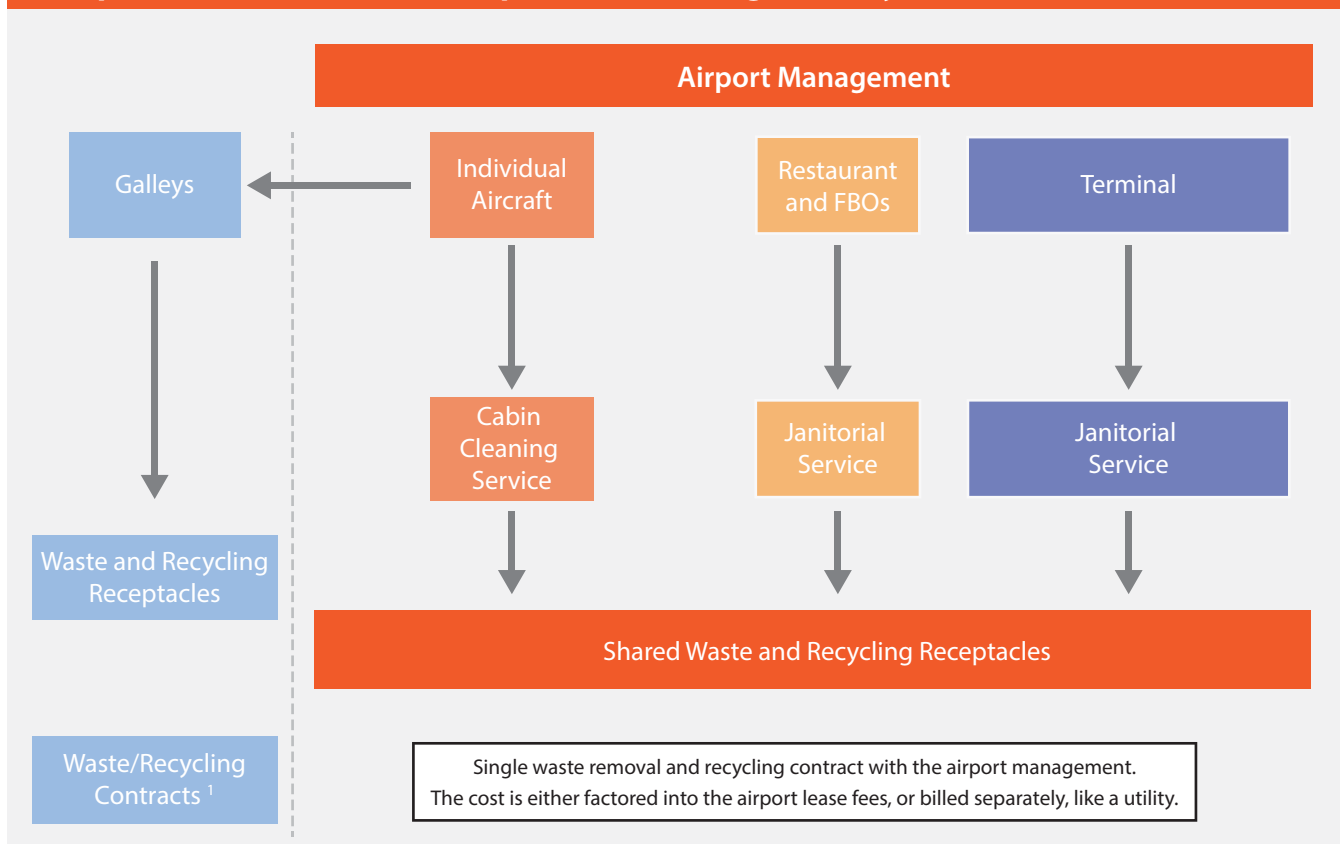
Source: Coffman Associates, Inc.

⁷ National Academies of Sciences, Engineering, and Medicine, Airport Cooperative Research Program, Synthesis 92, Airport Waste Management and Recycling Practices, 2018

Components of a Decentralized Airport Waste Management System



Components of a Centralized Airport Waste Management System



¹ Galleys typically manage their own waste even if an airport relies on a centralized system

Source: Natural Resources Defense Council, Trash Landings: How Airlines and Airports Can Clean Up Their Recycling Programs, December 2006.

Recommendations | To maximize waste reduction and introduce recycling efforts at the airport, the following recommendations are made:

- *Create a centralized waste management system at the airport.* Cameron County Airport currently participates in a decentralized waste management system because airport tenants are responsible for overseeing their own waste management. Airport staff could consider engaging tenants to create a centralized waste management system at the airport to streamline waste management efforts at the airport, especially as new facilities are developed.
- *Assign the responsibility of waste management to a dedicated individual or group.* Having one person or a group of people oversee and manage solid waste and recycling at the airport will create efficient and cost-saving solid waste management solutions. People dedicated to this operation aspect of the airport will be familiar with processes and will help identify areas of improvement and cost-saving measures.
- *Provide education for airport employees.* In order to minimize waste within the airport, it is crucial to inform and provide airport employees with a thorough education on waste management at both individual and group levels. As part of the onboarding process, new employees should be given the tools needed to achieve a thorough understanding of the airport's solid waste goals.
- *Audit the current waste management system.* The continuation of an effective program requires accurate data on current waste and recycling rates. An airport can gain insight into its waste stream in several ways, such as requesting weights from the hauler, tracking the volume, or reviewing the bills; however, managing the waste system starts with a waste audit, which is an analysis of the types of waste produced. A waste audit is the most comprehensive and intensive way to assess waste stream composition, opportunities for waste reduction, and capture of recyclables, and should include the following actions:
 - Examination of records
 - Evaluate waste-hauling and disposal records and contracts
 - Examine supply and equipment invoices
 - Identify other waste management costs (commodity rebates, container costs, etc.)
 - Track waste from the point of origin
 - Establish a baseline for metrics
 - Facility walk-through conducted by the airport
 - Gather qualitative waste information to determine major waste components and waste-generating processes
 - Identify the locations on the airport that generate waste
 - Identify what types of waste are generated by the airport to determine what can be reduced, reused, or recycled
 - Improve understanding of waste pickup and hauling practices

- Waste sort
 - Provides quantitative data on total airport waste generation
 - Allows problem-solving design and enhances the recycling program for the airport
- *Create a tracking and reporting system.* Track solid waste generated to identify areas where a significant amount of waste is generated, which will help the airport estimate annual waste volumes. Understanding the cyclical nature of waste generation will allow the airport to estimate costs and identify areas of improvement.
- *Create a recycling program at the airport.* To guarantee the airport reduces the amount of waste hauled to the landfill, materials that cannot be reused or avoided should be recycled, if possible. The city should review internal review internal procedures to ensure there are no unacceptable items contaminating recycling containers or recyclables thrown in the trash. Clearly marked signage indicating what is and is not accepted, placed near solid waste and recycling containers, is another significant component of a consistent, effective recycling program.
- *Reduce waste through controlled purchasing practices and the consumption of nonessential products.* The airport can control the amount of waste generated by prioritizing the purchase of items or supplies that are reusable, recyclable, compostable, or made from recycled materials.
- *Provide education for airport tenants.* It is crucial to encourage tenant participation to ensure buy-in of any future recycling efforts that may be undertaken at PIL. To ensure recycling is part of the airport's everyday business, airport administration should provide training and education to support personnel, tenants, and others who conduct business at the airport. In-person meetings with airport tenants could be held to create mutual understanding of the airport's solid waste and recycling goals and how tenants play a vital role in the airport's overall success.

ENVIRONMENTAL OVERVIEW

An analysis of potential environmental impacts associated with proposed airport projects is an essential consideration in the airport master plan process. The primary purpose of this discussion is to review the recommended development concept (**Exhibits 4A and 4B**) and the airport's capital program to determine whether projects identified in the airport plan could, individually or collectively, significantly impact existing environmental resources. Information contained in this section was obtained from previous studies, official internet websites, and analysis by the consultant. This section provides an overview of potential impacts to existing resources that could result from the implementation of the planned improvements outlined on the recommended development concept.

If the FAA retains approval authority over a project, then the project is typically subject to the *National Environmental Policy Act* (NEPA). For projects not categorically excluded under FAA 1050.1G, *FAA National Environmental Policy Act Implementing Procedures*, compliance with NEPA is generally satisfied through the preparation of an environmental assessment (EA). In instances where significant environmental impacts are expected, an environmental impact statement (EIS) may be required.

The 2024 FAA Reauthorization Act has also introduced a variety of updated and new environmental guidelines. The primary environmental-related updates are outlined in two sections: Section 743 and Section 783.

- Section 743 details the FAA’s authority to regulate uses of airport property for projects on land acquired without federal assistance and outlines limitations imposed on non-aeronautical review. Section 743 also states that a notice of intent for proposed projects outside FAA jurisdiction should be submitted by an airport sponsor to the FAA.
- Section 783 outlines the airport capacity enhancement projects, terminal development projects, and general aviation airport improvement projects that will be subject to coordinated and expedited environmental review requirements.

The following portion of the master plan is not designed to satisfy NEPA requirements for a specific development project, but it provides a preliminary review of environmental issues that may need to be considered in more detail within the environmental review processes. It is important to note that the FAA is ultimately responsible for determining the level of environmental documentation required for airport actions.

Table 4B summarizes potential environmental concerns associated with implementation of the ultimate recommended development concept for PIL. Analysis under NEPA includes effects or impacts a proposed action or alternative may have on the human environment (see 40 Code of Federal Regulations [CFR] §1508.1).

TABLE 4B Summary of Potential Environmental Concerns	
AVIATION EMISSIONS AND AIR QUALITY	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<i>The action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards (NAAQS), as established by the United States (U.S.) Environmental Protection Agency (EPA) under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.</i>
Potential Environmental Concerns	<p>Potential Impact. An increase in operations could occur over the 20+ year timeframe, as outlined in the forecast chapter, that would likely result in additional emissions. However, Cameron County is in attainment for all federal criteria pollutants.</p> <p>For construction or operational emissions, project-specific qualitative or quantitative emissions inventories under NEPA may be required, depending on the type of environmental review needed for specific projects defined on the development concept plan.</p>
BIOLOGICAL RESOURCES (including fish, wildlife, and plants)	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p><i>The U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) determines that the action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species or would result in the destruction or adverse modification of federally designated critical habitat.</i></p> <p><i>FAA has not established a significance threshold for non-listed species. However, factors to consider are if an action would have the potential for:</i></p> <ul style="list-style-type: none"> - <i>Long-term or permanent loss of unlisted plant or wildlife species;</i> - <i>Adverse impacts to special status species or their habitats;</i> - <i>Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or</i> - <i>Adverse impacts on a species' reproductive rates, non-natural mortality, or ability to sustain the minimum population levels required for population maintenance.</i>

Continues...

TABLE 4B | Summary of Potential Environmental Concerns (continued)

BIOLOGICAL RESOURCES (including fish, wildlife, and plants) (continued)

**Potential Environmental
Concerns**

Federally Protected Species

Potential Impact. According to the U.S. FWS Information for Planning and Consultation (IPaC) report, there is potential for 15 proposed threatened, proposed endangered, threatened, and endangered species at PIL:

- Gulf Coast jaguarundi – federal endangered
- ocelot – federal endangered / state endangered
- tricolored bat – federal proposed endangered
- cactus ferruginous pygmy-owl – federal threatened
- eastern black rail – federal threatened / state endangered
- northern aplomado falcon – federal endangered / state endangered
- piping plover – federal threatened / state threatened
- rufa red knot – federal threatened / state threatened
- green sea turtle – federal threatened / state threatened
- hawksbill sea turtle – federal endangered / state endangered
- Kemp’s ridley sea turtle – federal endangered / state endangered
- salina mucket – federal proposed endangered / state threatened
- monarch butterfly – federal proposed threatened
- south Texas ambrosia – federal endangered / state threatened
- Texas ayenia – federal endangered / state endangered

Based on a review of aerial imagery, it appears that PIL contains freshwater emergent wetlands in the central area of the airport and has grassland/shrubbery throughout the airfield. A biological resources evaluation is recommended to ensure that no suitable habitat for federally protected species is located at the airport.

Designated Critical Habitat

There are no designated critical habitats with airport boundaries.

Non-Listed Species

Potential Impact. Non-listed species of concern include those protected by the *Migratory Bird Treaty Act* (MBTA) and the *Bald and Golden Eagle Protection Act*. Bird species protected by the MBTA could be adversely affected if construction occurs during the nesting and breeding seasons. Pre-construction surveys of vegetated areas at the airport are recommended for projects that involve ground-clearing, unless such projects occur outside the nesting and breeding seasons.

State Protected Species

Potential Impact. According to a record search conducted on the Texas Parks & Wildlife Department’s Annotated County Lists of Rare Species, the species listed below have been identified as a state protected species within Cameron County.¹

Amphibians

- black-spotted newt – state threatened
- Mexican treefrog – state threatened
- sheep frog – state threatened
- South Texas siren – state threatened
- white-lipped frog – state threatened

Birds

- common black-hawk – state threatened
- gray hawk – state threatened
- northern beardless-tyrannulet – state threatened
- red-crowned parrot – state threatened
- reddish egret – state threatened
- rose-throated becard – state threatened

Continues...

TABLE 4B | Summary of Potential Environmental Concerns (continued)

BIOLOGICAL RESOURCES (including fish, wildlife, and plants) (continued)	
Potential Environmental Concerns	<p>Birds (continued)</p> <ul style="list-style-type: none"> sooty tern – state threatened swallow-tailed kite – state threatened Texas Botteri's sparrow – state threatened tropical parula – state threatened white-faced ibis – state threatened wood stork – state threatened zone-tailed hawk – state threatened <p>Fish</p> <ul style="list-style-type: none"> Mexican goby – state threatened Rio Grande shiner – state threatened river goby – state threatened <p>Mammals</p> <ul style="list-style-type: none"> Coues' rice rat – state threatened white-nosed coati – state threatened <p>Mollusks</p> <ul style="list-style-type: none"> Texas hornshell – state endangered <p>Reptiles</p> <ul style="list-style-type: none"> black-striped snake – state threatened northern cat-eyed snake – state threatened speckled racer – state threatened Texas horned lizard – state threatened Texas tortoise – state threatened <p>Plants</p> <ul style="list-style-type: none"> star cactus – state endangered <p>Impacts to all species listed above should be assessed prior to development on a project-by-project basis. Airport activities which involve tree-maintenance or removal activities could impact species listed above. Prior to the removal of vegetation or tree removal, a biological resources evaluation is recommended to ensure no suitable habitat for federally protected or state-protected species is located at PIL.</p> <p>¹These species are listed as state-protected species only and are not federally protected.</p> <p>Sources: USFWS IPaC, (https://ipac.ecosphere.fws.gov/), accessed September 2025; Texas Parks & Wildlife, Federal and State Listed Species in Texas, (https://tpwd.texas.gov/gis/rtest/), accessed September 2025</p>
COASTAL RESOURCES	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p>FAA has not established a significance threshold for Coastal Resources. Factors to consider are if an action would have the potential to:</p> <ul style="list-style-type: none"> Be inconsistent with the relevant state coastal zone management plan(s); Impact a coastal barrier resources system unit; Pose an impact on coral reef ecosystems; Cause an unacceptable risk to human safety or property; or Cause adverse impacts on the coastal environment that cannot be satisfactorily mitigated.
Potential Environmental Concerns	<p>Potential Impact. The airport is located in a coastal zone associated with the Gulf of Mexico. Prior to the development of the projects on the recommended development concept plan, coordination should be undertaken with the Texas General Land Office (GLO) to ensure development would not be inconsistent with the Texas Coastal Resiliency Master Plan.</p> <p>Source: Texas General Land Office, Coastal Zone Boundary, (https://data-glo.hub.arcgis.com/datasets/fb1c76bcc2684b6aba4dd2adea987112/explore), accessed September 2025</p>

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TABLE 4B | Summary of Potential Environmental Concerns (continued)

DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(f) (NOW CODIFIED IN 49 UNITED STATES CODE [U.S.C.] § 303)	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<i>The action involves more than a minimal physical use of a Section 4(f) resource or constitutes a “constructive use” based on an FAA determination that the aviation project would substantially impair the Section 4(f) resource. Resources that are protected by Section 4(f) are publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance; and publicly or privately owned land from an historic site of national, state, or local significance. Substantial impairment occurs when the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished.</i>
Potential Environmental Concerns	<p>Potential Impact. There is one Section 4(f) resource within one mile of the airport: the Laguna Atascosa National Wildlife Refuge, which is adjacent to the eastern side of airport property. The recommended development concept only proposes new airport development within existing airport property and would not physically use this resource. However, the closure of Runways 3-21 and 8-26 and the relocation of the Runway 13 threshold may lead to a change in air traffic patterns, which could increase overflights of the Wildlife Refuge.</p> <p>Source: Google Earth Aerial Imagery, accessed September 2025</p>
FARMLANDS	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p><i>The total combined score on Form AD-1006, Farmland Conversion Impact Rating, ranges between 200 and 260. (Form AD-1006 is used by the U.S. Department of Agriculture, Natural Resources Conservation Service [NRCS] to assess impacts under the Farmland Protection Policy Act [FPPA].)</i></p> <p><i>FPPA applies when airport activities meet the following conditions:</i></p> <ul style="list-style-type: none"> • Federal funds are involved; • The action involves the potential for the irreversible conversion of important farmlands to non-agricultural uses. Important farmlands include pastureland, cropland, and forest considered to be prime, unique, or statewide or locally important land; or • None of the exemptions to FPPA apply. These exemptions include: <ul style="list-style-type: none"> ○ When land is not considered “farmland” under FPPA, such as land already developed or already irreversibly converted. These instances include when land is designated as an urban area by the U.S. Census Bureau or the existing footprint includes rights-of-way. ○ When land is already committed to urban development. ○ When land is committed to water storage. ○ The construction of non-farm structures necessary to support farming operations. ○ The construction/land development for national defense purposes.
Potential Environmental Concerns	<p>No Impact. As detailed in Chapter One, the airport is not comprised of farmable soils and would not be subject to FPPA.</p> <p>Source: USDA-NRCS, Web Soil Survey, (https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx), accessed September 2025</p>
HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p><i>FAA has not established a significance threshold for Hazardous Materials, Solid Waste, and Pollution Prevention. However, factors to consider are if an action would have the potential to:</i></p> <ul style="list-style-type: none"> • Violate applicable federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management; • Involve a contaminated site; • Produce an appreciably different quantity or type of hazardous waste; • Generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity; • Use a different method of waste collection, treatment, storage, or disposal that, as an action, would adversely impact the site, surroundings, or affected community, and/or would exceed state, Tribal, or local capacity; or • Adversely affect human health and the environment.
Potential Environmental Concerns	<p>No Impact. There are no identified brownfields or Superfund sites within a one-mile buffer of the airport. Due to existing regulatory environmental management requirements regarding hazardous materials and water and stormwater management, no impacts related to ultimate airport development are anticipated. Additionally, no long-term impacts related to solid waste disposal based on the projects outlined in Exhibits 4A and 4B are expected.</p>

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TABLE 4B | Summary of Potential Environmental Concerns (continued)

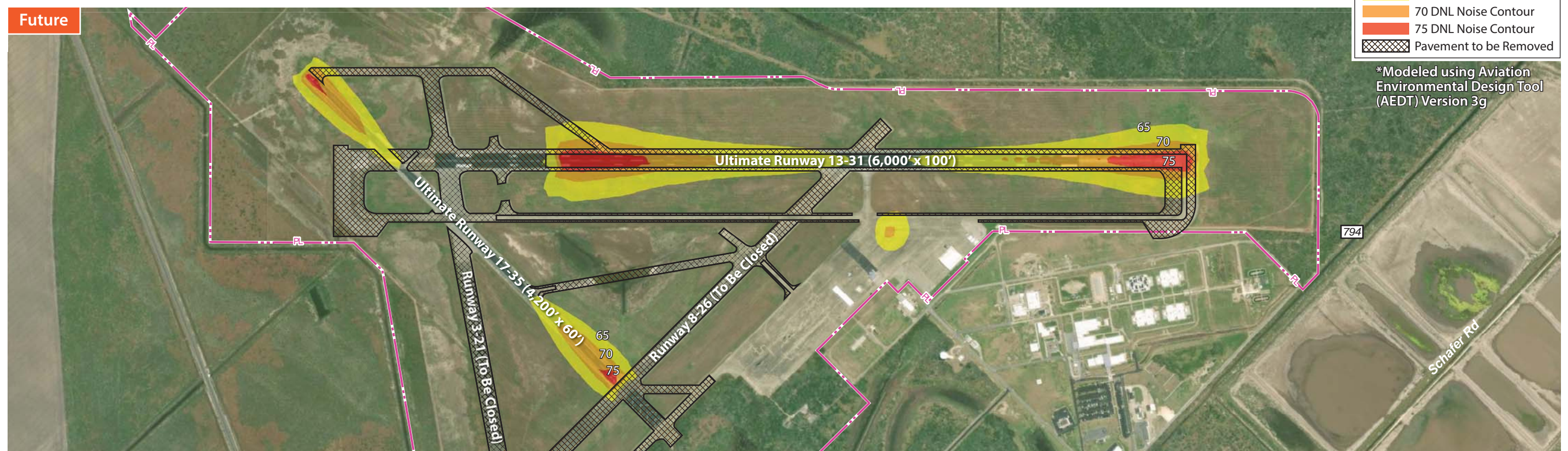
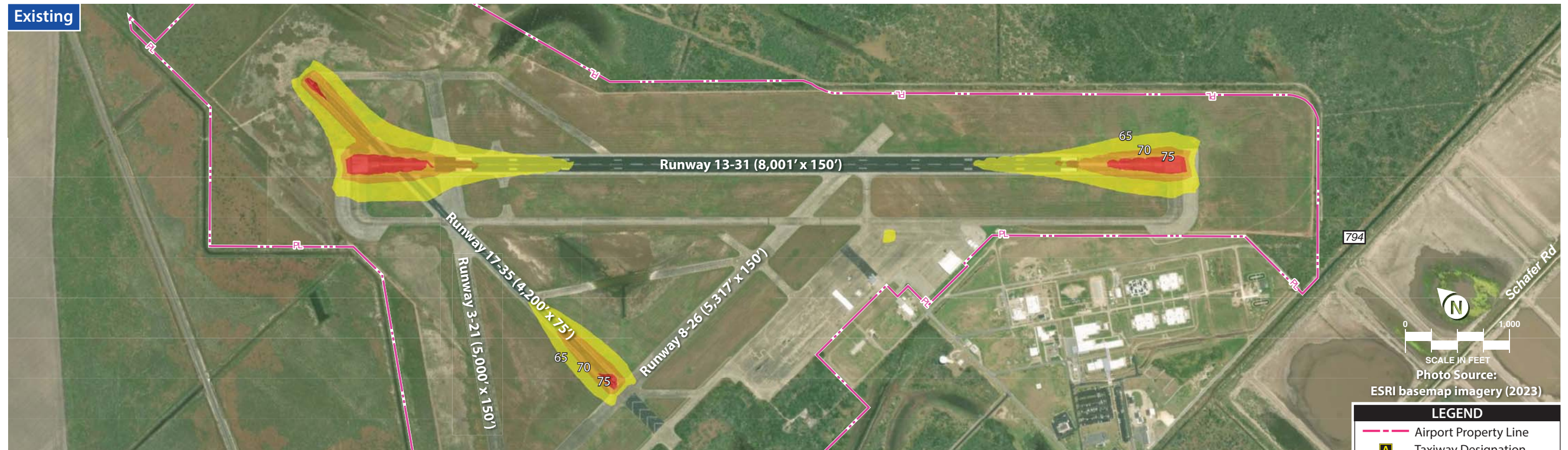
HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<i>FAA has not established a significance threshold for Historical, Architectural, Archaeological, and Cultural Resources. Factors to consider are if an action would result in a finding of “adverse effect” through the Section 106 process. However, an adverse effect finding does not automatically trigger the preparation of an EIS (i.e., a significant impact).</i>
Potential Environmental Concerns	<p>Potential Impact. There are no listed National Register of Historic Places (NRHP) on or near PIL. As mentioned in Chapter One, no systematic airport-wide cultural surveys have been conducted on airport property. While much of the airport has been developed or disturbed by construction, there is still a potential that intact cultural resources may be present either on the ground surface or subsurface.</p> <p>If previously undocumented buried cultural resources are identified during ground-disturbing activities for future airport development, all work must immediately cease within 30 meters (100 feet) until a qualified archaeologist has documented the discovery and evaluated its eligibility for the NRHP, as appropriate. Work must not resume in the area without approval of the FAA.</p> <p>Source: National Register of Historic Places, (https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466), accessed September 2025</p>
LAND USE	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<i>FAA has not established a significance threshold for Land Use. There are also no specific independent factors to consider. The determination that significant impacts exist is normally dependent on the significance of other impacts.</i>
Potential Environmental Concerns	<p>Potential Impact. Proposed airport development would occur within the existing airport boundaries and would not directly affect off-airport land uses. However, all ultimate landside development, such as hangar construction, should be evaluated to ensure that no traffic impacts or noise-related issues arise.</p>
NATURAL RESOURCES AND ENERGY SUPPLY	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<i>FAA has not established a significance threshold for Natural Resources and Energy Supply. However, factors to consider are if the action would have the potential to cause demand to exceed available or future supplies of these resources or adversely impact extant federal, Tribal, state, or local resource planning already in place.</i>
Potential Environmental Concerns	<p>No Impact. Planned development projects at the airport could increase demands on energy utilities, water supplies and treatment, and other natural resources during construction; however, significant long-term impacts are not anticipated. Should long-term impacts be a concern, coordination with local service providers is recommended.</p>
NOISE AND NOISE-COMPATIBLE LAND USE	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p><i>The significance threshold applies to all civil aviation activities, including aircraft and airports; UAS and hubs; AAM and vertiports; and commercial space vehicles and launch and reentry sites.</i></p> <p><i>The action would result in noise exposure from impulsive noise sources (e.g., sonic booms) that meet or exceed 60 CDNL – equivalent to DNL 65 dBA.</i></p> <p><i>The action would increase noise by Day-Night Average Sound Level (DNL) 1.5 decibel (dB) or more for a noise-sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.</i></p> <p><i>Another factor to consider is that special consideration should be given to the evaluation of the significance of noise impacts on noise-sensitive areas within Section 4(f) properties where the land use compatibility guidelines in Title 14 Code of Federal Regulations (CFR) Part 150 are not relevant to the value, significance, and enjoyment of the area in question.</i></p>
Potential Environmental Concerns	<p>No Impact. There are no schools, places of worship, or hospitals (i.e., noise sensitive land uses) located within a one-mile radius of the airport. As mentioned in Chapter One, the closest residence is over 0.75 miles from the airport. Based on the noise contours prepared for this study (Exhibit 4E), the 65 DNL would remain within airport boundaries in both the existing and future condition and would not impact any noise-sensitive land uses. Furthermore, the ultimate development at the airport is not expected to change the overall noise environment more than the 1.5 dB threshold.</p>

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TABLE 4B | Summary of Potential Environmental Concerns (continued)

SOCIOECONOMICS AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS	
Socioeconomics	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p>FAA has not established a significance threshold for Socioeconomics. However, factors to consider are if an action would have the potential to:</p> <ul style="list-style-type: none"> • Disrupt or divide the physical arrangement of an established community; • Cause extensive relocation when sufficient replacement housing is unavailable; • Cause extensive relocation of community businesses that would cause severe economic hardship for affected communities; • Disrupt local traffic patterns and substantially reduce the levels of service of roads serving the airport and its surrounding communities; or • Produce a substantial change in the community tax base.
Potential Environmental Concerns	<p>Potential Impact. The proposed development depicted on Exhibits 4A and 4B could encourage economic growth for Cameron County. This growth could include new construction jobs, new jobs for the airport and other commercial uses, new housing, and increases to the local tax base.</p> <p>The proposed development at the airport includes concentrations of hangars located on the existing apron area. No long-term traffic impacts are anticipated as a result of this development, as hangars are typically low traffic generators.</p>
Children's Health and Safety Risks	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p>FAA has not established a significance threshold for Children's Environmental Health and Safety Risks. However, factors to consider are if an action would have the potential to lead to a disproportionate health or safety risk to children.</p>
Potential Environmental Concerns	<p>No Impact. No disproportionately high or adverse impacts are anticipated to affect children living near the airport because of the proposed development. The airport is an access-controlled facility, and children will not be granted access to the airfield or landside facilities without adult supervision. All construction areas should be controlled to prevent unauthorized access as well.</p>
VISUAL EFFECTS (INCLUDING LIGHT EMISSIONS AND VISUAL RESOURCES/VISUAL CHARACTER)	
Light Emissions	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p>FAA has not established a significance threshold for Light Emissions. However, a factor to consider is the degree to which an action would have on the potential to:</p> <ul style="list-style-type: none"> • Create annoyance or interfere with normal activities from light emissions; • Affect the nature of the visual character of the area due to light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources;
Potential Environmental Concerns	<p>No Impact. The proposed development includes the continued maintenance of primary Runway 13-31 and crosswind Runway 17-35, and the closure of Runways 3-21 and 8-26. Runway 13-31 is currently equipped with MIRLS, REILs, and PAPI-2 lights, with a plan to upgrade to PAPI-4 lights in the future. Runway 17-35 is planned to be equipped with MIRLS, REILs, and PAPI-2s. MITL systems are planned for all taxiway pavement. All light fixtures would be installed at ground level and would not be seen from nearby roadways.</p> <p>Some development projects at the airport may require night-time construction. Night lighting during construction phases within the runway environment is typically directed downward to the construction work area to prevent light spilling outside the airport boundaries. Other projects, such as proposed hangar development, would include new light fixtures, such as security lighting. These lights would also be directed downward and would not create glare issues for users on nearby roadways. Similarly, if buildings are constructed in the reserve areas slated for aeronautical and non-aeronautical development, any lights installed for building security would be directed downwards to minimize the potential for glare issues.</p>

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TABLE 4B | Summary of Potential Environmental Concerns (continued)

VISUAL EFFECTS (INCLUDING LIGHT EMISSIONS AND VISUAL RESOURCES/VISUAL CHARACTER) (continued)	
Visual Resources/Visual Character	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p>FAA has not established a significance threshold for Visual Resources/Visual Character. However, a factor to consider is the extent an action would have on the potential to:</p> <ul style="list-style-type: none"> • Affect the nature of the visual character of the area, including the importance, uniqueness, and aesthetic value of the affected visual resources; • Contrast with the visual resources and/or visual character in the study area; and • Block or obstruct the views of the visual resources, including whether these resources would still be viewable from other locations.
Potential Environmental Concerns	<p>No Impact. There are no national scenic byways, state scenic byways, or scenic corridors near PIL. Furthermore, views of the airport are not readily accessible due to the flat topography of the airport environs.</p> <p>Furthermore, while the aeronautical reserve and non-aeronautical reserve could alter the visual landscape of the airport on the east side of Buena Vista Boulevard, there are no visual resources nearby that would be impacted by this development.</p>
WATER RESOURCES (INCLUDING WETLANDS, FLOODPLAINS, SURFACE WATERS, GROUNDWATER, AND WILD AND SCENIC RIVERS)	
Wetlands	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p>The action would:</p> <ol style="list-style-type: none"> 1. Adversely affect a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers; 2. Substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected; 3. Substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety or welfare (the term welfare includes cultural, recreational, and scientific resources or property important to the public); 4. Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands. 5. Promote the development of secondary activities or services that would cause the circumstances listed above to occur; or, 6. Be inconsistent with applicable state wetland strategies.
Potential Environmental Concerns	<p>Potential Impact. Based on a review of the National Wetlands Inventory, freshwater emergent wetlands are located in the central area of PIL. It is important to note that this information is based on aerial photography interpretation of images taken in 2009. To determine if wetlands are present, a field survey and/or wetland delineation may be required.</p> <p>Field surveys and wetland delineations may be required to determine the presence or absence of wetlands at the airport. Removal or relocation of wetlands may require a Section 404 permit under the <i>Clean Water Act</i>, which regulates the discharge of dredged or fill material into waters of the United States, including jurisdictional wetlands.</p> <p>Source: USFWS, National Wetlands Inventory, (https://www.fws.gov/program/national-wetlands-inventory), accessed September 2025</p>
Floodplains	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p>The action would cause notable adverse impacts on natural and beneficial floodplain values. Natural and beneficial floodplain values are defined in Paragraph 4.k of DOT Order 5650.2, <i>Floodplain Management and Protection</i>.</p>
Potential Environmental Concerns	<p>Potential Impact. Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the majority of the airport is located in an area of minimal flood hazard. However, there are portions of the airport that are located in the 500-year floodplain (refer to Exhibit 1L). Proposed development in these areas will need to adhere to Cameron County Floodplain Regulations.</p> <p>Source: FEMA Flood Map Service Center, (https://msc.fema.gov/portal/home), accessed September 2025</p>

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TABLE 4B | Summary of Potential Environmental Concerns (continued)

WATER RESOURCES (continued)	
Surface Waters	
FAA Order 1050.1G, Significance Threshold/Factors to Consider	<p>The action would:</p> <ol style="list-style-type: none"> 1. Exceed water quality standards established by federal, state, local, and tribal regulatory agencies; or 2. Contaminate public drinking water supply such that public health may be adversely affected. <p>Factors to consider are when a project would have the potential to:</p> <ul style="list-style-type: none"> • Adversely affect natural and beneficial water resource values to a degree that substantially diminishes or destroys such values; • Adversely affect surface waters such that the beneficial uses and values of such waters are appreciably diminished or can no longer be maintained and such impairment cannot be avoided or satisfactorily mitigated; or • Present difficulties based on water quality impacts when obtaining a permit or authorization.
Potential Environmental Concerns	<p>Potential Impact. The proposed development depicted on Exhibits 4A and 4B would increase impervious surfaces at PIL, primarily due to the construction of new taxiway pavements.</p> <p>A Texas Pollutant Discharge Elimination System (TPDES) general construction permit would be required for all projects that involve ground disturbance over one acre. FAA 150/5370-10H, Item C-102, <i>Temporary Air and Water Pollution, Soil Erosion, and Siltation Control</i>, should also be implemented during construction projects at the airport.</p>
Groundwater	
FAA Order 1050.1G, Significance Threshold/Factors to Consider	<p>The action would:</p> <ol style="list-style-type: none"> 1. Exceed groundwater quality standards established by federal, state, local, and tribal regulatory agencies; or 2. Contaminate an aquifer used for public water supply such that public health may be adversely affected. <p>Factors to consider are when a project would have the potential to:</p> <ul style="list-style-type: none"> • Adversely affect natural and beneficial groundwater values to a degree that substantially diminishes or destroys such values; • Adversely affect groundwater quantities such that the beneficial uses and values of such groundwater are appreciably diminished or can no longer be maintained and such impairment cannot be avoided or satisfactorily mitigated; or • Present difficulties based on water quality impacts when obtaining a permit or authorization.
Potential Environmental Concerns	<p>No Impact. Based on the NEPAassist website, there are no U.S. Geological Survey (USGS) groundwater wells at the airport. The closest sole source aquifer is the Edwards Aquifer I, located more than 245 miles from PIL.</p> <p>Sources: NEPAassist tool, (https://nepassisttool.epa.gov/nepassist/nepamap.aspx), accessed September 2025; Sole Source Aquifer, (https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b), accessed September 2025</p>

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TABLE 4B | Summary of Potential Environmental Concerns (continued)

WATER RESOURCES (continued)	
Wild and Scenic Rivers	
FAA Order 1050.1G, <i>Significance Threshold/Factors to Consider</i>	<p>FAA has not established a significance threshold for Wild and Scenic Rivers. Factors to consider are when an action would have an adverse impact on the values for which a river was designated (or considered for designation) through:</p> <ul style="list-style-type: none"> • Destroying or altering a river's free-flowing nature; • A direct and adverse effect on the values for which a river was designated (or under study for designation); • Introducing a visual, audible, or another type of intrusion that is out of character with the river or would alter outstanding features of the river's setting; • Causing the river's water quality to deteriorate; • Allowing the transfer or sale of property interests without restrictions needed to protect the river or the river corridor; or • Any of the above impacts preventing a river on the Nationwide Rivers Inventory (NRI) or a Section 5(d) river that is not included in the NRI from being included in the Wild and Scenic River System or causing a downgrade in its classification (e.g., from wild to recreational).
Potential Environmental Concerns	<p>No Impact. As discussed in Chapter One, PIL is not located near a listed river included within the Nationwide Rivers Inventory or a river classified in the National Wild and Scenic rivers list. Therefore, projects included on the master plan concept would not have adverse effects on these rivers' outstanding remarkable values (i.e., scenery, recreation, geology, fish, wildlife, and history).</p> <p>Sources: National Wild and Scenic Rivers System, (https://rivers.gov/), accessed September 2025; NPS Nationwide Rivers Inventory, (https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm), accessed September 2025</p>

SUMMARY

This section has been prepared to help inform those making decisions about the future growth and development of the airport by describing, both narratively and graphically, the recommended development concept. The plan represents an airfield facility that fulfills aviation needs for the airport while conforming to safety and design standards to the extent practicable. It also provides a landside complex that can be developed as demand dictates. The ALP drawing set, which will be included as an appendix of this report, details these plans and includes airspace analysis and recommendations regarding obstruction mitigation.

Flexibility will be important to the future development at the airport, as activity may not occur as predicted. The recommended concept provides stakeholders with a general guide that, if followed, can maintain the airport's long-term viability and allow it to continue providing aviation services to the region.