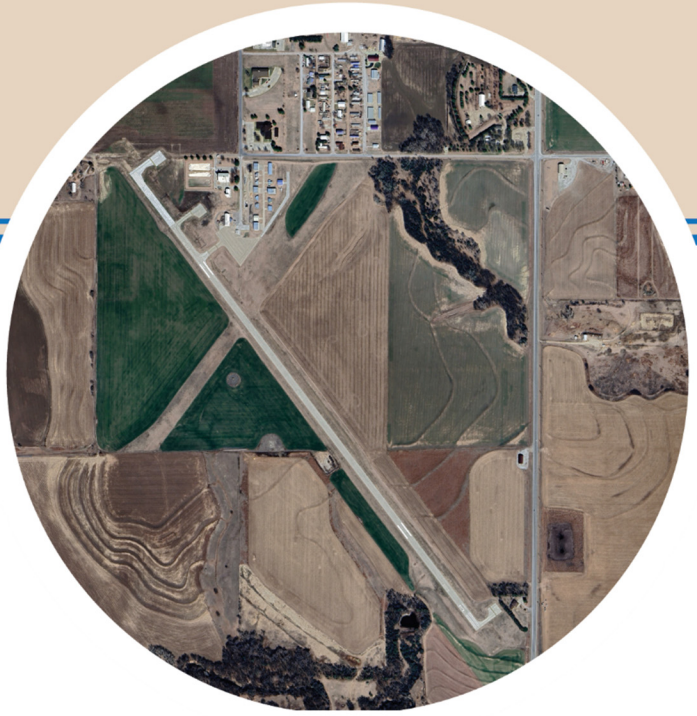
PHILLIPSBURG
Municipal Airport



Chapter 5
Recommended Development Concept

The airport master plan for Phillipsburg Municipal Airport (PHG) has progressed through a systematic and logical process with a goal of formulating a recommended 20-year development plan. The process began with an evaluation of existing and future operational demand, which aided in creating an assessment of future facility needs. Those needs were then used to develop alternative facility plans to meet projected needs. Each step in the planning process has included the development of draft working papers, which were presented and discussed at previous planning advisory committee (PAC) meetings and a public information workshop and have been made available on the project website.

In the previous chapter, several development alternatives were analyzed to explore options for the future growth and development of PHG. The development alternatives have been refined into a single recommended concept for the master plan. This chapter describes, in narrative and graphic form, the recommended direction for the future use and development of PHG.

The recommended concept provides the ability to meet the disparate needs of various airport operators. The goal of this plan is to ensure the airport can continue (and improve) in its role of serving general aviation operators. The plan has been specifically tailored to support existing and future growth in all forms of potential aviation activity as demand materializes.

The recommended master plan concept, as shown on **Exhibit 5A**, presents a long-term configuration for the airport that preserves and enhances its role while meeting Federal Aviation Administration (FAA) design standards. The phased implementation of the recommended development concept will be presented in Chapter Six. The following sections describe the key details of the recommended master plan concept.

AIRFIELD PLAN

The airfield plan generally considers improvements related to the runway and taxiway system and navigational aids. The following sections provide descriptions of the airfield recommendations.

DESIGN STANDARDS

The FAA has established design criteria to define the physical dimensions of runways and taxiways, as well as the imaginary surfaces surrounding them, to enhance the safe operation of aircraft at airports. These design standards also define the separation criteria for the placement of landside facilities.

As previously discussed, the design criteria primarily center on the airport's critical design aircraft. The critical design aircraft is the most demanding aircraft (or family of aircraft) that currently conducts or is projected to conduct 500 or more operations (takeoffs and landings) per year at the airport. Factors included in airport design are an aircraft's wingspan, approach speed, and tail height, as well as the instrument approach visibility minimums for each runway. The FAA has established the runway design code (RDC) to relate these critical design aircraft factors to airfield design standards.

While airfield elements, such as safety areas, must meet design standards associated with the applicable RDC, landside elements can be designed to accommodate specific categories of aircraft. For example, an airside taxiway must meet taxiway object free area (TOFA) standards for all aircraft types that use the taxiway, while the taxilane to a T-hangar area only needs to meet width standards for smaller single- and multi-engine piston aircraft that are expected to utilize the taxilane.

The applicable RDC and critical design aircraft for each runway at PHG in the existing and ultimate conditions, as established in Chapter Two, are summarized in **Table 5A**.

TABLE 5A | Airport and Runway Classifications

	Primary Runway 13-31		Turf Runway 3-21
	Existing	Ultimate	Existing & Ultimate
Runway Design Code (RDC)	B-I-5000	B-II-5000	A-I(Small)-VIS
Taxiway Design Group (TDG)	1A	2A	N/A
Critical Aircraft (Typ.)	Citation CJ1	King Air 200/300/350	Cessna 182

Source: FAA AC 150/5300-13B, Airport Design; Coffman Associates analysis

RUNWAY 18-36

Runway Dimensions | Runway 13-31 is currently 5,101 feet long and 60 feet wide. At this length, the runway can accommodate most business jet aircraft that currently operate at PHG, as well as those that are anticipated to operate more frequently in the future. The existing runway width of 60 feet meets existing RDC B-I-5000 design criteria but falls short of the 75-foot standard in the ultimate B-II-5000 condition. As such, Runway 13-31 is planned to be widened to 75 feet when a B-II classification is achieved. This will occur when 500 or more annual operations by B-II aircraft are conducted.

Runway 13-31 Ultimate RDC: B-II-5000
Runway 6-24 Ultimate RDC: A-I(Small)-VIS

N

0 600
SCALE IN FEET

Photo Source: Google Earth 02/2024

E Santa Fe Road

7.3 Acres

Construct Turf Runway 6-24

Install Fence/Gate

Install Reflectors or Runway Lighting

Install PAPI-4

Install Taxiway Lighting

17.7 Acres

183

A1 A2 A A3 A4

240′

Runway 13-31 (5,101' x 60') - Ultimate Runway 14-32 (5,101' x 75')

Runway 6-24 (2,340' x 60')

Ultimate Runway

3.1 Acres

Relocate Wind Cone/ Segmented Circle

17.1 Acres

500′

Install PAPI-4

Acquire Property in ROFA (2.2 Acres)

15.4 Acres

Decommission Turf Runway 3-21

7.3 Acres

Scale: 1″ = 200′

Aircraft Fueling

60′ x 60′

125′ x 100′ Community Hangar

25′ BRL

110′

ADG II TOFA

Scale: 1″ = 300′

Executive Box Hangars 60′x60′

Executive Box Hangars 75′x75′

79′

80′ x 280′

80′ x 280′

120′ x 120′

25′ BRL

LEGEND

- Airport Property Line
- Existing Easements
- Ultimate Airport Property Line
- A — Ultimate Taxiway Designation
- Runway Safety Area
- Runway Object Free Area
- Runway Obstacle Free Zone
- Runway Protection Zone
- Runway Visibility Zone
- AWOS Critical Area
- Ultimate Airfield Pavement
- Ultimate Turf Runway
- Ultimate Road/Parking
- Pavement to be Removed
- Fence/Gate
- Ultimate Avigation Easement
- Property to be Acquired
- Non-Aeronautical Reserve
- Mixed Use
- Ultimate Tiedown
- Removed Tiedown

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Pavement Strength | Runway 13-31 is currently strength-rated for up to 12,500 pounds for single wheel loading (S) aircraft. There is no reported pavement strength for dual wheel (D) or dual tandem wheel aircraft (2D). A pavement evaluation to determine the strength rating for D and 2D aircraft is recommended to be conducted, with pavement strengthening as necessary to support aircraft within the ultimate B-II design family, such as the King Air 350, which has a maximum takeoff weight of 15,000 pounds D.

Safety Areas Property Acquisition | In the existing B-I environment associated with Runway 13-31, all safety areas are owned and controlled by the airport sponsor, either as part of airport property or via easements, with the exception of approximately 3.1 acres of land located within the Runway 31 runway protection zone (RPZ). This uncontrolled area is recommended to be controlled through the acquisition of additional easements, where feasible. State Highway 183 also traverses the RPZ. While the FAA prefers public roads to be located outside the RPZ, it is often infeasible to do so, as mitigative actions typically include either re-routing or closing the roadway, or shortening the runway, either by physically removing pavement or displacing the threshold. None of these options are considered feasible, so the plan does not include any actions to remove the road from the RPZ. In the ultimate B-II condition, the dimensions of the runway safety area (RSA) and runway object free area (ROFA) increase, resulting in a portion of the ROFA on the southwest side of the runway to extend beyond the airport property line. This area, approximately 2.2 acres in size, is planned to be acquired, as recommended by the FAA. There are no changes to the size of the RPZs in the ultimate condition.

Visual Approach Aids | Runway 13-31 is currently equipped with two-box precision approach path indicator (PAPI-2) systems and runway end identifier lights (REILs) at each runway end. The plan includes an upgrade to four-box PAPIs (PAPI-4) when the PAPI-2s reach the end of their lifespan. The REILs are planned to be maintained. LED bulbs are recommended to be used when this equipment is replaced/upgraded.

EXISTING TURF RUNWAY 3-21/UTLIMATE TURF RUNWAY 6-24

Runway Orientation | PHG is currently served by a turf crosswind runway, Runway 3-21. Based on historic wind information, the airport is eligible for a crosswind runway, as Primary Runway 13-31 does not provide at least 95% coverage in crosswind conditions until the 16-knot condition. The airside alternatives presented in the previous chapter detailed several options for the future disposition of the crosswind runway, including maintaining it as-is, reorienting it to maximize runway length and future landside development, or eliminating it altogether and widening the primary runway to 100 feet in lieu of a crosswind. Following discussion with City of Phillipsburg and FAA staff, it was determined that the most feasible option was to decommission the existing turf Runway 3-21 and construct a new turf Runway 6-24. At this orientation, the combined wind coverage provided by primary Runway 13-31 and future turf Runway 6-24 is at least 95% in the 10.5-knot condition. This orientation also allows for a longer operating length than what is available today, as well as greater potential for further development of the existing landside area, which will be discussed in greater detail as follows.

Runway Dimensions | Existing turf Runway 3-21 measures 1,755 feet long by 150 feet wide and serves small aircraft exclusively. This runway is planned to be decommissioned and a new turf runway, Runway 6-24, will be constructed at a length of 2,340 feet and width of 60 feet. At these dimensions, the ultimate turf runway will continue to serve small aircraft, with the additional length providing an added safety margin for aircraft operations. While narrower than the width of the existing turf runway, the planned 60-foot width for ultimate turf Runway 6-24 is consistent with A-I(small) standards.

Safety Areas and Property Acquisition | The RSA, ROFA, and runway obstacle free zone (ROFZ) associated with ultimate turf Runway 6-24 are located entirely on airport property; however, the planned runway's RPZs extend beyond the airport property line, the unowned portions of which are planned to be controlled by avigation easement. This includes approximately 7.2 acres property located within the Runway 24 RPZ and approximately 7.0 acres of property located within the Runway 6 RPZ. Each RPZ is free of potentially incompatible land uses.

Markers and Lighting | Turf Runway 6-24 is planned to be equipped with standard boundary markers to identify the extent of the runway's operating surface. This includes low mass cones, low intensity runway lighting (LIRL) or reflectors, and color panels to contrast with the surrounding grade.

TAXIWAY IMPROVEMENTS

The taxiway system at PHG is currently limited to a single connector taxiway between the terminal apron and the runway, with taxiway turnarounds at each runway end. There is no parallel taxiway serving Runway 13-31. The recommended development concept includes the construction of a parallel taxiway (ultimate Taxiway A), planned to meet airplane design group (ADG) II and taxiway design group (TDG) 2A design standards. These standards establish a minimum taxiway width of 35 feet.

Taxiway Nomenclature | The FAA recommends using the guidelines found in Engineering Brief 89, *Taxiway Nomenclature Convention*, when developing or revising airport plans, such as this master plan. Following the standards presented in the brief, the planned taxiway system at PHG has been given alphanumeric designations to improve both the situational awareness of pilots and the safety margins at the airport. The ultimate designations can be seen on **Exhibit 5A**.

Taxiway A | Ultimate Taxiway A is a planned parallel taxiway that extends the entire length of Runway 13-31. The taxiway will be designed to meet ADG II and TDG 2A standards, which call for a width of 35 feet, a taxiway safety area (TSA) of 124 feet, and a taxiway object free area (TOFA) of 110 feet. Existing entrance taxiways (A1 and A4) are planned at both ends of the runway to provide access to the runway thresholds, with planned Taxiways A2 (existing terminal apron connector) and A3 serving as exit taxiways. The entrance taxiway that previously served Runway 13 before it was extended is planned to be removed. All taxiway pavement is planned to be equipped with medium intensity taxiway lighting (MITL).

Taxiway Geometry Improvements | The terminal apron connector taxiway currently functions as a direct access point, which is not an FAA-preferred condition. The planned construction of the parallel taxiway and removal of apron pavement adjacent to the parallel taxiway will mitigate the direct access condition.

WEATHER-REPORTING EQUIPMENT

The airport is equipped with an automated weather observation station (AWOS-3), located on the south side of airport property near the midpoint of Runway 13-31. This equipment meets FAA siting criteria, and the associated 500-critical area is included within an existing easement, allowing the airport sponsor to control object heights within the easement area. No changes are planned for the AWOS or its location.

A wind cone is co-located with a segmented circle south of the runways' intersection. In this location, the wind cone obstructs the runway visibility zone (RVZ). As such, the plan includes a project to relocate this equipment northwest of the runways' intersection to an area outside the RVZ, as depicted on **Exhibit 5A**.

LANDSIDE CONCEPT

The primary goal of landside facility planning is to provide adequate space to meet reasonably anticipated needs of the various users while optimizing operational efficiency and land use. Achieving these goals yields a development scheme that segregates functional uses while maximizing the airport's revenue potential.

All landside development should occur only as dictated by demand. The locations and sizes of aprons and hangars proposed in the recommended plan are conceptual and may not reflect the needs of future developers and their customers. The recommended concept is strictly intended to be used as a guide for the City of Phillipsburg when considering new developments.

Recommended landside developments are depicted on **Exhibit 5A**.

GENERAL AVIATION FACILITIES

Terminal | The facility requirements evaluation determined that the existing terminal building is adequately sized to meet long-term demand; however, the building is in need of improvements. As such, the plan includes the demolition of the existing terminal building and Quonset hangar and adjacent office, and the construction of a 12,500 square foot (sf) community hangar with a dedicated area to provide terminal services/facilities, such as restrooms, office space/flight planning room, and a vending area. The demolition of the existing terminal building is also necessary to allow for an unobstructed taxilane object free area (TLOFA) on the expanded apron.

Apron and Tiedowns| The existing apron capacity at PHG totals approximately 6,800 square yards (sy). The plan includes the continuation of the apron to the northwest along the flightline. The expansion would bring the total apron area to approximately 10,600 sy and would support the construction of the community hangar/terminal, a new executive box hangar, additional aircraft tiedowns, and relocation of fueling facilities. Currently, the locations of the fuel station and tiedowns impede aircraft circulation on the apron, particularly for aircraft taxiing to or from the existing hangar area. The construction of ultimate Taxiway A would allow for two access points onto the apron. While this would require the removal of the existing tiedowns on the southeast side, new tiedowns are planned along the southwest edge of the apron. The fuel station and storage tanks are also planned to be relocated to the north side

of the new apron, with a gated access road for fuel trucks and deliveries. These improvements will enhance efficiency of aircraft movements on the apron, improving circulation and alleviating the congestion that occurs when an aircraft is fueling.

Hangars | Hangar facilities at PHG consist of T-hangars, which are designed to accommodate individual smaller aircraft, and executive box hangars, which can accommodate larger aircraft. The plan includes layouts for new executive hangars and conventional style hangars, for which demand is greatest, as well as two 8-unit nested T-hangars. In addition to the community hangar on the expanded apron, a 3,600-sf executive box hangar is planned for the northwest corner. Additional executive box hangars ranging in size from 3,600 sf to 5,625 sf are planned along the existing taxilane, along with a 14,400-sf conventional hangar that could house an aviation-related business, such as an aircraft maintenance provider or flight school. Additional taxilane and apron pavement are planned to support each hangar. The development concept also includes the construction of a new taxilane extending to the northeast from ultimate Taxiway A. This taxilane will provide access to new executive box hangars and the planned T-hangar complex. Construction in this area will be feasible when turf Runway 3-21 is decommissioned and its safety areas no longer limit expansion of landside facilities to the east. The safety areas and Part 77 surfaces associated with planned turf Runway 6-24 will not be an impediment to the development as pictured.

Fuel Storage | As mentioned, existing fuel facilities, including underground storage tanks and the fuel pump/stations, are planned to be replaced and relocated to a new site on the expanded apron. Aboveground tanks for 100LL and Jet A are planned, with capacities of 4,000 gallons each. A new self-service fuel station is also planned. During the design phase of this project, consideration should be given to the potential inclusion of a tank for unleaded aviation fuel, particularly as the use of this fuel type becomes more widespread.

Vehicle Parking and Access Roads | Vehicle parking at the airport is currently limited to the public parking area next to the terminal building. This parking lot is planned to remain to serve the new community hangar/terminal. New parking lots and vehicle access roads are planned in relation to most of the new hangar developments, as shown on **Exhibit 5A**.

Fencing and Gates | PHG does not have perimeter fencing. To better secure the airfield and limit access to authorized personnel only, chain-link fencing is planned for unsecured portions on the north side of the airfield. This includes the area along E. Santa Fe Road, extending from the northeast corner of airport property to the airport access road, then extending along the east side of the airport access road and around the public parking lot. Two motorized security gates are also planned: one near the planned fuel facilities, and another at the planned access road connecting to E. Santa Fe Road.

RESERVE PROPERTY

Airports often have areas of property that are undeveloped but should be classified for future use potential. Generally, areas along the flight line should be reserved for aeronautical development; however, there are instances where these areas are inaccessible to the airfield or the surrounding road network and offer limited utility for aviation operations. These areas are typically reserved for other non-aeronautical related uses that provide an opportunity to diversify and expand revenue streams for the airport.

At PHG, much of the undeveloped land is used for agricultural purposes. These areas are identified in purple shading on **Exhibit 5A** and are planned to remain for non-aeronautical uses. The 17.1-acre portion of property on the southwest side of the airport (shown in orange shading) has been identified for mixed use development/reserve. A mixed-use designation applies to property that serves or has the potential to serve both aeronautical and non-aeronautical uses. This specific area, while currently being used for agricultural purposes, has the potential to be used for future aeronautical purposes given the road access available from E. Santa Fe Road via Center Road. If and when demand for additional aeronautical development arises, this area or a portion of it could be used for expanded airfield operations and landside development.

AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION

The primary objective of this section is to provide the City of Phillipsburg and its airport administration with recommendations for ultimate improvements and processes that promote sustainable principles in addressing airport operations and aviation demand. Prioritizing sustainability in the planning process will aid the airport in identifying ways to reduce its overall environmental impact. As a result of implementing sustainability issues in the master plan process, the airport can become a more environmentally friendly economic hub.

REGULATORY GUIDELINES

FAA Modernization and Reform Act of 2012

The *FAA Modernization and Reform Act of 2012* (FMRA), which amended Title 49 United States Code (USC), included several changes to the 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 requiring airports that have or plan to prepare a master plan and receive AIP funding for an eligible project to ensure the new or updated master plan addresses issues relating to solid waste 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 generation of revenue

State of Kansas Statute Annotated (K.S.A.) 65-3405(a)(5): Solid and Hazardous Waste

Kansas Statutes Annotated (K.S.A.) 65-3405 directs the Kansas Department of Health and Environment (KDHE) to establish a statewide solid waste plan, which is updated every five years. The most recent plan is the "2021-2025 State Solid Waste Management Plan." The plan's purpose is twofold: to provide an overview of the state's current condition of solid waste management, and to establish state program goals to be implemented by KDHE. On a more local level, every county in the state is required to develop and maintain a current solid waste management plan, which is adopted by the local governing agency and submitted to the state. These management plans establish local reduction goals based on unique regional factors. Annual reports are submitted to the Kansas Department of Health and Environment (KDHE) Waste Management Division as an assessment to meeting these goals. Phillips County adopted the 2025 Solid Waste Management Plan in April 2025.

City of Phillipsburg Solid Waste Management

At a citywide level, the Phillipsburg Public Works Department is responsible for the collection and disposal of the city's solid waste. The Public Works Department provides a system of collection and transportation of municipal solid waste for residential, commercial, and public land uses within the city.

SOLID WASTE

Typically, an airport sponsor has purview over waste handling services in facilities it owns and operates, such as the passenger terminal building, airport-owned hangars, and maintenance facilities. Tenants of airport-owned buildings/hangars or tenants that own their own facilities are usually responsible for coordinating their own waste handling services. While airport-operated facilities are the focus of this plan, the airport should work to incorporate facility-wide strategies that create consistency in waste disposal mechanisms, which would ultimately result in the reduction of materials sent to the landfill.

For airports, waste can generally be divided into eight categories:[1]

- **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 Waste** (C&D) is considered non-hazardous trash that results from land clearing; excavation; and demolition, renovation, or repair of structures, roads, and utilities, including concrete, wood, metals, drywall, carpet, plastic, pipe, cardboard, and salvaged building components. C&D is also generally labeled as MSW.
- **Green Waste** is a form of MSW yard waste that consists of tree, shrub, and grass clippings; 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.

[1] FAA, Recycling, Reuse, and Waste Reduction at Airports, April 24, 2013

- **Deplaned Waste** is waste removed from passenger aircraft. Deplaned waste includes bottles, cans, mixed paper (newspapers, napkins, 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 triturator[2] 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 also special wastes and are generated during cleanup of spills and/or the remediation of contamination from several types of sites on an airport.

- **Hazardous Wastes** are governed by the Resource Conservation and Recovery Act (RCRA), as well as the regulations in 40 CFR Subtitle C, Parts 260 to 270. The U.S. EPA developed less stringent regulations for certain hazardous waste – known as universal waste – described in 40 CFR Part 237, *The Universal Waste Rule*.

The airport potentially contributes to the waste stream via multiple areas, including the terminal building (offices), on-airport tenants, hangars, and airport construction projects. To create a comprehensive waste reduction and recycling plan for the airport, all potential inputs must be considered.

SOLID WASTE MANAGEMENT SYSTEM

Airports generally utilize either a centralized or decentralized waste management system. The differences between these two methods are described below.

- **Centralized Waste Management System –** With a centralized waste management system, the airport provides receptables for the collection of waste, recyclables, or compostable materials and contracts for their removal by a single local provider.[3] The 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 because it involves fewer players in the overall management of the solid waste and recycling efforts and allows greater control by the city over the type, placement, and maintenance of dumpsters, thereby saving space and eliminating the need for each tenant to have its own container(s).

- **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; however, airport tenants manage the waste from their leased spaces with

[2] A triturator facility turns lavatory waste into fine particulates for further processing.
[3] National Academies of Sciences, Engineering, and Medicine Airport Cooperative Research Program, Synthesis 92, Airport Waste Management and Recycling Practices, 2018

separate contracts, billing, and hauling schedules. A decentralized waste management system can increase the number of receptacles on airport property, as well as the number of trips by a waste collection service provider if the collection schedule for a tenant differs from the airport's collection schedule.

PHG generally operates under a centralized waste system. Bins for the collection of solid waste are located at the rear of the terminal building. While there is at least one tenant who contracts for their own trash service, most tenants collect their own waste before disposing of it in these bins.

EXISTING SERVICES

Refuse is collected by the City of Phillipsburg Public Works Department and disposed of at the Phillips County Landfill, which is owned and operated by Phillips County. The City of Phillipsburg does not provide recycling pick-up for residential or commercial customers. Rather, customers are encouraged to collect and transport recyclables to the Phillips County Landfill Recycling Center. Acceptable items include paper, cardboard, plastic, glass, and cans (aluminum, tin, steel).

GOALS AND RECOMMENDATIONS

Solid Waste and Recycling Goals

Table 5B outlines objectives that could help reduce waste generation and increase recycling efforts at the 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 5B | Waste Management and Recycling Goals

Goals	Objectives
Reduce amount of solid waste generated	• Switch to online bill pay to eliminate monthly paper bills • Conduct a waste audit to identify most common types of waste • Eliminate (or reduce) purchase of items that are not recyclable (i.e., Styrofoam, plastic bags)
Reuse materials or equipment	• Reuse grass clippings as mulch • Reuse cardboard boxes for storage
Increase amount of materials recycled	• Introduce recycling services to all areas of the airport • Encourage waste and recycling tracking and data management • Incorporate recycling requirements and/or recommendations into tenant lease agreements • Introduce recycling marketing and promotion efforts throughout public areas • Require contractors to implement strategies to reduce, reuse, and recycle construction and demolition waste

Source: Coffman Associates, Inc.

Recommendations

The following recommendations are made to maximize waste reduction and initiate recycling efforts at the airport. These recommendations should be considered for implementation if and when the City of Phillipsburg establishes a city-sponsored recycling program:

- *Audit the current waste management system*. The continuation of an effective program requires accurate data on current waste and recycling rates. There are several ways an airport can gain insight into their waste stream, such as requesting weights from the hauler, tracking volume, and reviewing bills, but managing the waste system should start with a waste audit. A waste audit is an analysis of the types of waste produced and is the most comprehensive and intensive way to assess waste stream composition, opportunities for waste reduction, and capture of recyclables. A waste audit should include the following actions:
    - Examination of records
        - Review waste hauling and disposal records and contracts
        - Examine supply and equipment invoices
        - Evaluate other waste management costs (commodity rebates, container costs, etc.)
        - Track waste from the point of origin
        - Establish a baseline for metrics
    - Facility walkthrough conducted by airport staff
        - Gather qualitative waste information to determine major waste components and waste-generating processes
        - Identify the locations of the airport that generate waste
        - Identify what types of waste are generated by the airport to determine what can be reduced, reused, or recycled
        - Understand waste pickup and hauling practices
    - Waste sort
        - Provide quantitative data on total airport waste generation
        - Allow problem-solving design/enhance the recycling program for the airport
- *Create a tracking and reporting system*. Tracking solid waste generation will allow the airport to identify areas in which a significant amount of waste is generated and will help the airport estimate annual waste volumes. Understanding the cyclical nature of waste generation will allow the airport to estimate costs and will identify areas of improvement. Once the airport engages in recycling services, the airport can track recycling rates and waste quantities to identify cost-saving measures that are currently unidentified due to a lack of quantitative data.
- *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 ongoing tenant education*. It is vital to encourage tenant participation to ensure buy-in of the airport's recycling efforts. To ensure recycling is part of the airport's everyday business, city administration can provide training and educational support to 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.

- *Incorporate an airport-wide waste reduction strategic plan*. Designing an airport-wide waste reduction strategic plan will create consistency in waste deposal mechanisms, ultimately resulting in the reduction of materials sent to the landfill.

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 (**Exhibit 5A**) and the airport's capital program to determine whether projects identified in the airport master 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 Order 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 5C summarizes potential environmental concerns associated with implementation of the ultimate recommended development concept for PHG. Analysis under NEPA includes effects or impacts a proposed action or alternative may have on the human environment (see Title 40 Code of Federal Regulations [CFR] §1508.1).

TABLE 5C | Summary of Potential Environmental Concerns

AVIATION EMISSIONS AND AIR QUALITY	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***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.***
Potential Environmental Concerns	**Potential Impact.** An increase in operations could occur over the 20+ year planning horizon of the master plan that would likely result in additional emissions; however, Phillips County is in attainment for all federal criteria pollutants. 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.
BIOLOGICAL RESOURCES (INCLUDING FISH, WILDLIFE, AND PLANTS)	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) determines 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.*** ***The FAA has not established a significance threshold for non-listed species; however, factors to consider include whether an action would have the potential for:*** • ***Long-term or permanent loss of unlisted plant or wildlife species;*** • ***Adverse impacts to special status species or their habitats;*** • ***Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or populations; or*** • ***Adverse impacts on a species' reproductive rates, non-natural mortality, or ability to sustain the minimum population levels required for population maintenance.***
Potential Environmental Concerns	<u>Federally Protected Species</u> **Potential Impact.** According to the USFWS *Information for Planning and Consultation* (IPaC) report, there is potential for two endangered and proposed threatened species at PHG: • whooping crane – federal endangered / state endangered • monarch butterfly – federal proposed threatened Out of these two species, the monarch butterfly has the potential to occur at PHG due to the airport's proximity to nearby agricultural fields that may be utilized as habitat for foraging. <u>Designated Critical Habitat</u> **No Impact.** There are no designated critical habitats within the airport. <u>Non-Listed Species</u> **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 (March through September). Pre-construction surveys of vegetated areas at the airport are recommended for projects that involve ground-clearing projects unless such projects occur outside the nesting and breeding seasons. *(Continues)*

TABLE 5C | Summary of Potential Environmental Concerns (continued)

Potential Environmental Concerns (continued)	State Protected Species **Potential Impact.** According to the Kansas Department of Wildlife and Parks (KDWP) Threatened and Endangered (T&E) Species list, the following species are state-listed but not federally listed in Phillips County: • least tern – state endangered • piping plover – state endangered • snowy plover – state threatened • eastern spotted skunk – state threatened Impacts on these species should be assessed prior to development on a project-by-project basis. The recommended development concept depicts hangar development which would require vegetation removal. *Sources: USFWS, IPaC (https://ipac.ecosphere.fws.gov/), accessed July 2025; Kansas Department of Wildlife & Parks (https://ksoutdoors.com/Services/Threatened-and-Endangered-Wildlife/List-of-all-Kansas-Counties), accessed July 2025*
COASTAL RESOURCES	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The FAA has not established a significance threshold for Coastal Resources. Factors to consider include whether an action would have the potential to:*** • ***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	**No Impact.** PHG is not located in a coastal zone; therefore, there are no recognized Coastal Zone Management Areas (CZMAs) near the airport.
***DEPARTMENT OF TRANSPORTATION ACT*, SECTION 4(f)** (NOW CODIFIED IN TITLE 49 UNITED STATES CODE [USC] § 303)	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***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 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 a 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.***
Potential Environmental Concerns	**No Impact.** There are several potential Section 4(f) resources located with a mile of PHG, as detailed in Chapter One, Table 1E; however, these resources are all located off airport property and no physical or constructive use would occur to these potential Section 4(f) resources as a result of the proposed development.
FARMLANDS	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***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 (USDA) Natural Resources Conservation Service (NRCS) to assess impacts under the Farmland Protection Policy Act (FPPA).*** ***The FPPA applies when airport activities meet the following conditions:*** • ***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*** *(Continues)*

TABLE 5C | Summary of Potential Environmental Concerns (continued)

FAA Order 1050.1G, *Significance Threshold/ Factors to Consider* (continued)	• ***None of the exemptions to the FPPA apply; these exemptions include:*** ○ ***Land that is not considered "farmland" under the FPPA, such as land that is 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;*** ○ ***Land that is already committed to urban development;*** ○ ***Land that is committed to water storage;*** ○ ***Construction of non-farm structures necessary to support farming operations; and*** ○ ***Construction/land development for national defense purposes.***
Potential Environmental Concerns	**Potential Impact.** As detailed in Chapter One, the entirety of the airport is comprised of farmable soils and may be subject to the FPPA.
HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The FAA has not established a significance threshold for Hazardous Materials, Solid Waste, and Pollution Prevention.; however, factors to consider include whether an action would have the potential to:*** • ***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	**No Impact.** There are no identified Superfund sites within one mile of the airport. The closest brownfield is 0.85 miles north of the airport and would not be impacted by on-airport development. Due to existing regulatory environmental management requirements regarding hazardous materials and water and stormwater management, no impacts related to ultimate airport development are anticipated. The construction of the executive box hangars and T-hangars on the northeast side of the airport would increase the amount of solid waste generated at the airport; however, no long-term impacts related to solid waste disposal are expected. The closest landfill to the airport is Phillips County Landfill, which is located 0.5 miles west of PHG.
HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The FAA has not established a significance threshold for Historical, Architectural, Archaeological, and Cultural Resources. Factors to consider include whether 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).***
Potential Environmental Concerns	**Potential Impact.** There are no listed National Register of Historic Places (NRHP) resources on airport property. As mentioned in Chapter One of the master plan, no systematic airport-wide cultural surveys have been conducted, and while much of the airport has been developed or disturbed by construction, there is still a chance intact cultural resources may be present on the ground surface or subsurface. 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 the approval of the FAA. *(Continues)*

TABLE 5C | Summary of Potential Environmental Concerns (continued)

Potential Environmental Concerns (continued)	As mentioned in Chapter One, there may be historic-age structures located on the north side of the airport. If changes to historic-age structures are considered, a building evaluation should be conducted prior to these changes. *Source: National Register of Historic Places (https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466), accessed July 2025*
LAND USE	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The FAA has not established a significance threshold for Land Use and there are no specific independent factors to consider. The determination that significant impacts exist is normally dependent on the significance of other impacts.***
Potential Environmental Concerns	**Potential Impact.** Proposed airport improvements include the construction of a full-length parallel taxiway serving ultimate Runway 14-32, installation of taxiway lighting, widening of ultimate Runway 14-32 pavement, installation of four-light precision approach path indicators (PAPI-4s), relocation of the wind cone and segmented circle, and construction of hangars and associated improvements (i.e., access roads and vehicular parking). As mentioned earlier in the text under the *Farmlands* section, the proposed development would occur in areas that are comprised of soils suitable for farming; thus, coordination may need to be undertaken with the USDA on a project-by-project basis. **Exhibit 5A** depicts property to be acquired south of ultimate Runway 14-32 to ensure the runway object free area (ROFA) associated with ultimate Runway 14-32 is controlled by the airport sponsor. Additionally, avigation easements are proposed for three runway protection zones (RPZs) located off airport property. These avigation easements are recommended to give the airport control over what land uses may be permitted within the airport's RPZs and critical areas. **Exhibit 5A** also includes hangar development along E Santa Fe Road. These hangars would be visible from nearby residences along E Santa Fe Road, as there is no existing visual buffer (i.e., other facilities or vegetation) between the residences and proposed hangars. In addition, non-aeronautical reserve areas and a mixed-use reserve area have been proposed for portions of the airport that are currently undeveloped and are currently being used for agricultural purposes. Identifying the two parcels of land as non-aeronautical reserve allows for the continuation of agricultural operations in the future. Identification of the 17.1-acre parcel as mixed-use creates the potential for this area to serve both aeronautical and non-aeronautical uses. Refer to the *Noise and Noise-Compatible Land Use* section for information regarding noise-sensitive land uses and proposed developed at the airport.
NATURAL RESOURCES AND ENERGY SUPPLY	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The FAA has not established a significance threshold for Natural Resources and Energy Supply; however, factors to consider include whether 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.***
Potential Environmental Concerns	**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.
NOISE AND NOISE-COMPATIBLE LAND USE	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***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.*** ***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).*** *(Continues)*

TABLE 5C | Summary of Potential Environmental Concerns (continued)

FAA Order 1050.1G, *Significance Threshold/ Factors to Consider* (continued)	***The action would increase noise by a day-night average sound level (DNL) of 1.5 decibels (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.*** ***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.***
Potential Environmental Concerns	**No Impact.** As outlined in Chapter One, Table 1G, several noise-sensitive land uses are within one mile of the airport. Proposed developments, such as the hangars depicted in the northeast portion of the airport and the mixed-use parcel on the west side, are all situated less than 0.5 miles from noise-sensitive land uses. It is important to note that operational growth, unless tied to a specific project, will not result in noise impacts under FAA Order 1050.1G. Impacts to land uses are evaluated through NEPA documentation for specific projects or through the voluntary Part 150 process.
SOCIOECONOMICS AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS	
Socioeconomics	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The FAA has not established a significance threshold for Socioeconomics; however, factors to consider include whether an action would have the potential to:*** • ***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	**Potential Impact.** The proposed development depicted in **Exhibit 5A** could encourage economic growth for the City of Phillipsburg. This growth could include new construction jobs, new jobs at the airport, and increases to the local tax base. The proposed development includes construction of executive box hangars and T-hangars located in the northeastern portion of the airport. No long-term traffic impacts are anticipated on local roadways (e.g., E Santa Fe Road) as a result of this development, as hangars are typically low traffic generators.
Children's Health and Safety Risks	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The FAA has not established a significance threshold for Children's Environmental Health and Safety Risks; however, factors to consider include whether an action would have the potential to lead to a disproportionate health or safety risk to children.***
Potential Environmental Concerns	**No Impact.** No disproportionately high or adverse impacts are anticipated to affect children living near the airport due to the proposed ultimate development. The recommended development concept depicts the installation of fencing/gates along the northeast side of airport property to aid in controlling access to the airport. Children would not be allowed within the fenced portions of the airport without adult supervision. All construction areas should be controlled to prevent unauthorized access, as well.
VISUAL EFFECTS	
Light Emissions	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The FAA has not established a significance threshold for Light Emissions; however, a factor to consider is the degree to which an action would have the potential to:*** • ***Create annoyance or interfere with normal activities from light emissions; or*** • ***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.***

(Continues)

TABLE 5C | Summary of Potential Environmental Concerns (continued)

Potential Environmental Concerns	**No Impact.** The airfield is outfitted with medium-intensity runway edge lights (MIRLs) and threshold lights along Runway 13-31. Proposed lighting improvements involve installing taxiway lighting along ultimate Taxiway A and upgrading the two-light precision approach path indicator (PAPI-2) system to a PAPI-4 system. These lighting improvements will occur at ground level and are not anticipated to be seen off airport property by light-sensitive land uses (e.g., local residences).
Visual Resources/Visual Character	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The FAA has not established a significance threshold for Visual Resources/Visual Character; however, a factor to consider is the extent to which an action would have the potential to:*** • ***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	**No Impact.** There are no visually protected resources near the airport (i.e., national scenic byways, All-American Roads, or scenic corridors). Proposed development depicted on **Exhibit 5A** will be visually similar to what currently exists at PHG.
WATER RESOURCES	
Wetlands	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The action would:*** 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 that support 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	**No Impact.** Based on aerial mapping conducted by the National Wetlands Inventory, the closest mapped wetland is adjacent to the southwest portion of the airport boundaries and appears to be connected to Deer Creek (see **Exhibit 1J**). There are no proposed development projects near this wetland. *Source: USFWS, National Wetlands Inventory (https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper), accessed July 2025*
Floodplains	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***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 U. S. Department of Transportation (DOT) Order 5650.2, Floodplain Management and Protection.***
Potential Environmental Concerns	**Unknown.** As mentioned in Chapter One of this report, the Federal Emergency Management Agency and the Kansas Department of Agriculture lack mapped floodplain data for PHG. *Source: FEMA Flood Map Center (https://msc.fema.gov/portal/search?AddressQuery=phillispburg%20muncipal%20airport), accessed July 2025*

(Continues)

TABLE 5C | Summary of Potential Environmental Concerns (continued)

Surface Waters	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The action would:*** ***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.*** ***Factors to consider are when a project would have the potential to:*** • ***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	**Potential Impact**. The proposed airport development would increase impervious surfaces at PHG with the construction of the proposed hangars and associated apron areas and ultimate roads/parking on the northeastern side of the airport, along with the increased width for ultimate Runway 14-32 and construction of ultimate Taxiway A. The additional runoff associated with the new development will need to be accommodated by the airport's stormwater conveyance system and a stormwater pollution prevention plan to ensure pollutants do not contribute to off-airport water quality concerns. A National Pollutant Discharge Elimination System (NPDES) general construction permit would be required for all projects that involve ground disturbance over one acre. FAA 150/5370-10H, Item C-102, *Temporary Air and Water Pollution, Soil Erosion, and Siltation Control,* should also be implemented during construction projects at the airport.
Groundwater	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The action would:*** ***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.*** ***Factors to consider are when a project would have the potential to:*** • ***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	**No Impact**. There are no U.S. Geological Survey (USGS) or U.S. EPA groundwater monitoring wells or sole source aquifers at the airport. *Source: NEPAssist Mapper (https://nepassisttool.epa.gov/nepassist/nepamap.aspx), accessed July 2025*
Wild and Scenic Rivers	
FAA Order 1050.1G, *Significance Threshold/ Factors to Consider*	***The FAA has not established a significance threshold for Wild and Scenic Rivers. Factors to consider include when an action would have an adverse impact on the values for which a river was designated (or considered for designation) through:*** • ***Destroying or altering a river's free-flowing nature;*** • ***Directly and adversely affecting on the values for which a river was designated (or under study for designation);*** *(Continues)*

TABLE 5C | Summary of Potential Environmental Concerns (continued)

FAA Order 1050.1G, *Significance Threshold/ Factors to Consider* (continued)	• ***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	**No Impact.** The closest designated National Wild and Scenic River is the Niobrara River in Nebraska, roughly 205 miles from PHG. The closest National River Inventory feature is a segment of the Saline River, which is located 58 miles from the airport. Projects delineated 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). *Sources: National Wild and Scenic Rivers (https://rivers.gov/), accessed July 2025; Nationwide Rivers Inventory (https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm), accessed July 2025*

SUMMARY

This chapter was prepared to help the airport sponsor make decisions on the future growth and development of PHG by narratively and graphically describing the 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 guide for a landside complex that can be developed as demand dictates.

Flexibility will be crucial to future development at the airport, as activity may not occur as predicted. The development concept provides airport stakeholders with a general guide that, if followed, can maintain the airport's long-term viability and allow the airport to continue to provide general aviation services for the region. The next chapter of this master plan will consider strategies for funding the recommended improvements and will provide a reasonable schedule for undertaking the projects over the next 20 years and beyond, based on safety and demand.