

# PHL Master Plan Update

## Executive Summary – *Environmental Overview*

### **Introduction**

This section explains how environmental factors at PHL could impact the development and selection of alternatives and improvements identified in the master plan. It discusses federal laws and regulations that require demonstrating no feasible alternatives to minimize impacts to certain environmental resources. These resources include wetlands, floodplains, Section 4(f) resources, and threatened and endangered species. Additionally, some environmental impacts could affect the timing and/or cost of specific projects because they require permits, approvals, or consultations with federal or state agencies prior to project implementation.

This section also addresses environmental conditions that could be time-consuming or costly to mitigate, such as hazardous materials that need to be remediated or the acquisition of properties that require relocating existing uses. It notes that while the FAA will determine the level of National Environmental Policy Act (NEPA) documentation required for each project, this section assesses the likely conditions and impacts based on the existing information.

Chapter 2 of the AMPU provides an environmental overview that highlights environmental and sustainability goals for PHL, and additional environment plans and planning processes. This section also discusses findings from various environmental and planning resources, as well as input from experts in the field, to identify potential environmental impacts and issues that could affect the site. The following sections discuss broader environmental considerations that are relevant for most of the projects in the master plan, as well as specific projects and their associated requirements and considerations.

### **Shared Environmental Considerations**

The proposed master plan for the airport includes improvements such as a preferred dual double-stacked roadway frontage landside alternative, a preferred terminal concept with 145 gates, and suggested taxiway/taxilane improvements that would enhance the airport's capacity. As a result, it would likely change its air quality impacts, which is why a detailed assessment of the plan improvements is necessary to determine the extent of these changes. It is important to note that PHL is in an Environmental Protection Agency (EPA)-designated non-attainment area for 8-hour ozone and partially located in a designated maintenance area for Particulate Matter (PM) 2.5 criteria air pollutant, based on the National Ambient Air Quality Standards (NAAQS) under the Clean Air Act of 1990.

The entire PHL site is located within the Delaware Estuary Coastal Zone, meaning that all the projects in this plan must be consistent with the Coastal Resource Management Program (CRMP) of Pennsylvania and New Jersey. The specific policies relevant to AMPU projects include Coastal Hazard Areas, Wetlands, Historic Sites and Structures, Port Activities, Intergovernmental Coordination and Public Involvement.

The airport site does not overlap with any Section 4(f) resources, such as publicly owned parks, recreational areas, wildlife refuges, or significant historic sites. The nearest Section 4(f) properties include John Heinz National Wildlife Refuge in Tinicum Township and Fort Mifflin in the City of Philadelphia. Although the plan alternatives have avoided these properties, a more detailed analysis of alternatives may be required to assess noise impacts on these resources.

The Master Plan Implementation must take into consideration the potential impacts on Hazardous Materials and Solid Waste as specific areas are designed. This is due to the presence of potential sources of soil or groundwater contamination and hazardous materials in expanding cargo areas. The Enterprise

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Avenue Superfund Site, located near Runway 8-26, has been monitored by the DOA and the EPA, and the Master Plan Update recommendations will not impact the site.

In addition to the potential impacts on hazardous materials and solid waste, it is also important to consider the potential noise impacts of the proposed runway or taxiway improvements and the Vertiport facility on surrounding residential areas. As the projects advance, it will be necessary to analyze the plan alternatives for their potential impacts on Environmental Justice communities living near the airport, to identify any disproportionate or negative impacts such as air emissions, aircraft noises, flood control, and added traffic.

The presence of jurisdictional wetlands and Exceptional Value Wetlands must also be taken into consideration during the Master Plan Implementation. Projects within the plan will require a Section 404 Joint Application for Pennsylvania Water Obstruction and Encroachment Permitting if they impact the wetlands in the area. Furthermore, a significant portion of the airport property is located within the Federal Emergency Management Agency's (FEMA) 100-year and 500-year floodplain, which is regulated by the City of Philadelphia and Tinicum Township. Both municipalities require a freeboard of 1 ½ feet above the Base Flood Elevation (BFE) in the 100-year floodplain, with the BFE typically being 9-11 feet. Although the 500-year floodplain is not currently regulated, it is advisable to consider flooding in the design due to the risk of flooding today and in the future due to climate change and sea level rise. The Master Plan Implementation will require building and construction within the floodplain, including a new parking garage structure, the preferred terminal layout, and airport maintenance facilities. To ensure the safe and successful implementation of the Master Plan, it is essential to consider the regulations and requirements for building in the 100-year floodplain and the potential risk of flooding in the 500-year floodplain.

#### **Project Specific Considerations**

##### **Landside Development**

The proposed landside development concept avoids critical wetlands within the airport property, including the DC-11 Exceptional Value Wetland. This wetland provides habitat for threatened and endangered species and will not be affected by the development. However, the preferred terminal layout will impact existing pervious surfaces and add new pervious surfaces north of the terminal.

##### **Terminal Concept Layout**

The proposed terminal concept avoids disturbing the DC-11 Exceptional Value Wetland and culverts the Church-Mingo Creek wetlands.

##### **Airside Alternatives**

The master plan does not cover detailed analysis of runway improvements. However, the AMPU reviewed the airside projects recommended in the PHL Capacity Enhancement Program (CEP). The 2010 Record of Decision (ROD) for the CEP specified the environmental impacts including increased impervious surfaces, loss of wetlands, and impacts on biotic communities and protected species. The airside improvements, including the preferred taxiway/taxilane alternative, will impact both paved and unpaved areas and reduce pervious surfaces on the airside. The improvements also plan to impact

**PHL Master Plan Update**  
**Executive Summary – *Environmental Overview***

Jurisdictional Wetlands/Waterways and Exceptional Value Wetlands/Waterways, as referenced from the 2010 ROD for the PHL CEP and the approved 2019 Jurisdictional Determination (JD).

**Vertiport Facility**

The Vertiport alternatives are planned to be located on the roof of the proposed garage facility in the landside area. The new facility would generate noise contours; however, lower than existing helicopters based on current electric Vertical Takeoff and Landing (eVTOL) aircraft designs and most likely masked by the constant noise generated by I-95 traffic. However, this facility will be part of a public environmental review process to confirm its potential effects on the local community.

**Airport Maintenance and DOA Office Facility**

The proposed west and east site alternatives for airport maintenance facilities and DOA office are free from wetlands, according to the 2010 ROD for the PHL CEP and the approved 2019 JD. The nearest wetlands, including the DC 404 Jurisdictional Wetlands and Exceptional Value Wetlands, are located within half a mile of the west site.