

2.1 Introduction

This chapter provides an overview of environmental conditions, operations, and development to be considered at the Tri-Cities Airport (PSC). A review of environmental compliance is presented, as are environmental categories.

This overview identifies environmental elements to assist in the avoidance and minimization of environmental effects of airport projects, and highlights elements that may require additional review as part of an environmental documentation process, prior to proposed airport improvement projects.



Conditions were determined primarily by literature and database searches, photography and map interpretation, agency correspondence, and local knowledge. Field investigation is limited to that described.

This chapter is not intended to satisfy environmental clearance requirements outlined in Federal Aviation Administration (FAA) Order 1050.1E, *Environmental Impacts and Procedures*, nor is it intended to fulfill the requirements of the National Environmental Policy Act (NEPA). NEPA requires an action involving federal funding or permit approval to undergo an environmental analysis, to evaluate and document proposed effects. An airport project utilizing federal funds is considered a *federal action* and requires NEPA compliance.

2.2 Environmental Considerations

This section presents social, environmental, and economic considerations, and provides an overview for subsequent analysis under NEPA and Washington's State Environmental Policy Act (SEPA).

2.2.1 Air Quality

Generally, an air quality analysis is needed for projects that, due to their size, scope, or location, have the potential to change or diminish air quality standards. These standards governed by the Clean Air Act (CAA) and the Environmental Protection Agency (EPA), known as National Ambient Air Quality Standards (NAAQS), are established by the Office of Air Quality Planning and Standards. Compliance with NAAQS means that ambient outdoor levels of defined air pollutants are safe for human health and the environment.

Federal regulations require states to define geographic areas as *attainment*, *non-attainment*, or *maintenance* areas for NAAQS. Areas defined as *attainment* meet NAAQS. *Non-attainment* and *maintenance* areas are those in which the concentrations of pollutants exceed NAAQS. Federal actions within non-attainment and maintenance areas usually require air quality analysis. States develop EPA-approved State Implementation Plans to address air quality, and identify a plan to bring non-attainment and maintenance areas into compliance. The Office of Air Quality Planning and Standards considers PSC to be in a NAAQS attainment area.

According to the FAA Order 1050.1E Appendix A, proposed improvements at an airport having less than 180,000 annual general aviation (GA) aircraft operations and less than 1.3 million annual passenger enplanements do not require an air quality analysis. Since PSC GA aircraft operations are expected to be less than 180,000, and since PSC annual passenger enplanements are expected to be less than 1.3 million, no air quality analysis is required.

2.2.2 Coastal Resources

The Coastal Zone Management Act established the Federal Coastal Zone Management Program to encourage and assist states in preparing and implementing management programs to “preserve, protect, develop, and where possible, to restore or enhance the resources of the nation’s coastal zone.” The Airport is not located in a coastal zone management area, and airport development is not expected to impact coastal resources.

2.2.3 Compatible Land Use

Land use planning allows the Airport to achieve compatibility with surrounding communities, while maintaining the ability to safely satisfy existing users and accommodate expanded operations to meet aviation demand.

Land use is addressed in Chapter 7.

2.2.4 Construction Impacts

FAA Advisory Circular (AC) 150/5370-10, *Standards for Specifying Construction of Airports*, contains provisions to minimize impacts to air quality, water quality, and soil erosion associated with projects. The AC directs that construction and demolition debris be disposed of per applicable state and federal criteria. Each construction project should determine impacts and identify techniques to reduce impacts.

2.2.5 Cultural Resources

The National Historic Preservation Act recommends measures to coordinate federal historic preservation activities, and to comment on federal actions affecting historic properties included in, or eligible for inclusion in, the National Register of Historic Places. The Archaeological and Historic Preservation Act “provides the survey, recovery, and preservation of significant scientific, prehistorical, historical, archeological, or paleontological data when such data may be destroyed or irreparably lost due to a federal, federally licensed, or federally funded project”.

Often airport projects require that buildings be removed or previously undisturbed earth be excavated, which removes evidence of historic buildings and archaeological sites. The FAA requires that the effects of projects on historical, architectural, archaeological, and cultural resources be determined prior to improvement.

A July 2009 cultural resource review concluded that there are no known prehistoric archaeological sites on Airport property. However, the Airport property has potential to contain historic cultural materials associated with the early development of the American airline industry, due to the Varney Air Lines (later to become United Airlines) activity in the early 1930's. In addition, the Airport was used as a Naval Air Station and may have historic materials and remnant structures. It is recommended that a cultural survey, including field work, be conducted to determine the existence of historic resources within Airport property prior to development activities.

An October 2010 archaeological survey, included in **Appendix D**, found no items of archaeological significance within a study area that consisted of land for a proposed parking lot expansion, and the realignment of Taxiway D. This is to be verified as part of the environmental reviews at the time of implementation for these and other airport improvement projects.

2.2.6 Department of Transportation Act, Section 4(f) Resources

Section 4(f) of the Department of Transportation Act provides that the Secretary of Transportation “will not approve any program or project that requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land from a historic site of national, state, or local significance as determined by the officials having jurisdiction, thereof, unless there is no feasible and prudent alternative to the use of such land and such program, and the project includes all possible planning to minimize harm resulting from the use.”

A July 2009 cultural resource review indicated that the Airport may have materials and remnant structures associated with historic military use. Prior to development, it is recommended that a cultural resource investigation be conducted to determine the existence of historic resources.

2.2.7 Environmental Justice

The purpose of Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, is to identify, address, and avoid disproportionately high and adverse human or environmental effects on minority and low-income populations. Environmental Justice is defined as the right to a safe, healthy, productive, and sustainable environment for all, and in this context, “environment” is considered to include the ecological, physical, social, political, aesthetic, and economic environments.

Based on 2000 census data, there are no disproportionate concentrations of minority, low-income, or people requiring assisted transportation in the vicinity of the Airport. Improvements to PSC are not expected to require relocation of residences and businesses, or to have disproportionately high adverse impacts on minority and low-income populations. Data should be revisited prior to improvement implementation.

2.2.8 Farmlands

The Farmland Protection Policy Act (FPPA) was enacted to minimize the extent to which federal actions and programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. The FPPA classifies farmland as *prime* farmland, *unique* farmland, or farmland of statewide or local *importance*. *Prime* farmland has the best combination of physical and chemical characteristics for producing food, forage, fiber, and oilseed crops. *Unique* farmland is land other than *prime* farmland used for the production of specific high-value food and fiber crops such as citrus, tree nuts, olives, cranberries, fruits, and vegetables. Farmland of statewide or local *importance* includes soils that do not meet *prime* farmland criteria, but economically produce high yields of crops when treated and managed. A federal action which may result in conversion of farmland to non-agricultural use requires coordination with the U.S. Department of Agriculture Natural Resource Conservation Services (NRCS).

According to the NRCS, Quincy Loam Fine Sand is the dominant soil type, and is considered to be of statewide or local importance. Norvark Silt Loam, a soil type associated with prime farmland if irrigated, encompasses approximately 40 acres of the northwestern portion of the Airport. Potential impact to these soils types will require coordination with the NRCS, to determine FPPA applicability or exemption. Local comprehensive plans designate Airport property as urban area; therefore, future agricultural development is unlikely. **Exhibit 2-1** illustrates these soil types.



Fish, Wildlife, and Plants

This section focuses on species listed as *endangered*, *threatened*, or of *special concern* by the federal and state government. An animal or plant species in danger of extinction throughout all or a significant portion of its range is considered *endangered*, and is protected from harm pursuant to federal and state law. A *threatened* species is one that is likely to become endangered. Species of *special concern* are not formally afforded regulatory protection, but reduction in their number and habitat is of concern.

The Endangered Species Act (ESA) provides for protection of plants, animals, and habitats. In compliance with the ESA, agencies overseeing federally-funded projects coordinate with the U.S. Fish and Wildlife Service (FWS) concerning species listed, or proposed to be listed, which may be present. Since the State of Washington is a recipient of federal funds, and oversees federally-funded projects, coordination with the Washington Department of Natural Resources (DNR) is required.

There are five ESA listed (endangered, threatened, special concern, or candidate) species on the 2008 Franklin County Species List

- Pygmy Rabbit
- Bull Trout
- Ute Ladies'-Tresses
- Washington Ground Squirrel
- White Bluffs Bladderpod



A July 2009 information search through the Washington DNR Natural Heritage Information System, to determine the existence of documented rare plants or high-quality native ecosystems on Airport property, yielded no records.

In addition to federal protection, the Washington Department of Fish and Wildlife Priority Habitat and Species (PHS) program protects state sensitive species. A July 2009 review of PHS data identified three state sensitive species on Airport property.

- Black-tailed Jackrabbit
- Burrowing Owl
- Long-billed Curlew



In accordance with the Migratory Bird Treaty Act (MBTA), airports typically discourage bird flyways and habitat, such as standing water or large deciduous tree stands, as such features promote a higher likelihood of wildlife strikes. The Burrowing Owl is a state candidate species, a federal species of special concern, and a migratory bird, protected by the MBTA. It is recommended that a survey for Burrowing Owls in project areas be completed prior to improvement activities.

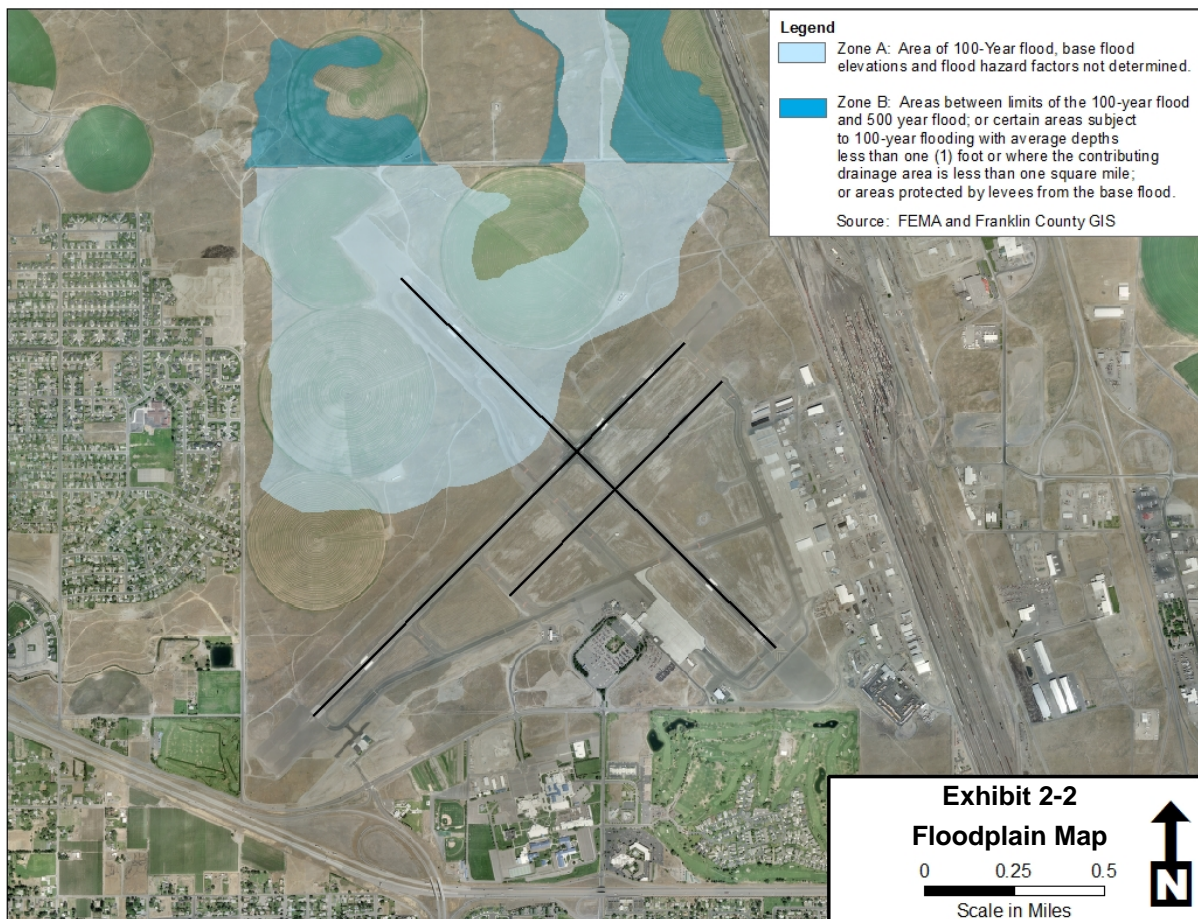
Airport development projects have the potential to impact species and habitats. An October 2010 biological survey, included in **Appendix D**, found no threatened or endangered species within a study area that consisted of land for a proposed parking lot expansion, and the realignment of Taxiway D. This is to be verified as part of the environmental reviews at the time of implementation for these and other airport improvement projects.

Floodplains

A floodplain is generally a flat, low-lying area adjacent to a stream or river that is subject to inundation during high flows. The relative elevation of a floodplain determines its frequency of flooding. For example, a 100-year floodplain has a frequency of inundation, on average, once every 100 years.

U.S. Department of Transportation (DOT) regulations direct airport development action to avoid floodplains, if another prudent and feasible alternative exists. If no prudent alternative exists, activity in floodplains should minimize adverse impacts.

A July 2009 review of Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) and Franklin County Geographic Information System (GIS) shows the northwest corner of Airport property within FEMA-designated 100-year floodplain, identified as “Zone A” in **Exhibit 2-2**. Coordination with state and federal agencies is required prior to improvements within floodplains.



2.2.9 Hazardous Materials, Pollution Prevention, and Solid Waste

Hazardous materials are defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 United States Code (USC) 6901-6992. Hazardous materials include substances that because of their quantity, concentration, or physical, chemical, or infectious characteristics, may present substantial danger to public health or welfare or the environment.

The two statutes of concern to the FAA are the RCRA, as amended by the Federal Facilities Compliance Act, and the CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA) and by the Community Environmental Response Facilitation Act. RCRA governs the generation, treatment, storage, and disposal of hazardous wastes. CERCLA provides for consultation with natural resources trustees and cleanup of release of a hazardous substance, excluding petroleum, into the environment.

A July 2009 review of the DOE Facility Site Atlas identified several “sites of interest” on Airport property. The DOE defines “sites of interest” as state cleanup sites, federal superfund sites, hazardous waste generators, solid waste facilities, underground storage tanks, dairies, or enforcement. Coordination with the DOE is recommended to determine the significance of each site.

Executive Order 12088, *Federal Compliance with Pollution Control Standards*, directs federal agencies to comply with applicable pollution control standards, in the prevention, control, and abatement of environmental pollution, and consult with the EPA, state, interstate, and local agencies concerning the techniques and methods available for the prevention, control, and abatement of environmental pollution.

Solid waste produced on site from construction activities is to be disposed of in accordance with the Washington Department of Environmental Quality (DEQ).

An overview of related regulation associated with activities at PSC is presented in **Appendix B**.

2.2.10 Light Emissions and Visual Impacts

Lighting for aviation security, obstruction identification, and navigation can be considered light emissions. The introduction of a new, or relocation of an existing, airport lighting facility is to be analyzed for affect on residential and other light sensitive land uses.

2.2.11 Natural Resources and Energy Supply

This section considers potential changes in demand for energy or natural resources that would have a measurable effect on local supplies due to implementation of proposed projects. Energy requirements associated with an airport usually fall into two categories: demands for stationary facilities and demands for the movement of air and ground vehicles.

FAA guidance states that airport improvement projects not increase the consumption of energy or natural resources to the point of significant impacts, unless it is found that implementation of a project would cause demand to exceed supply. Airport improvement projects may cause increased energy consumption during construction, but increases are expected to be temporary and not significant.

2.2.12 Noise

Per FAA Order 1050.1E, projects at airports that experience 90,000 annual piston-powered aircraft operations, 700 annual jet-powered aircraft operations, citing a new airport, runway relocation, runway strengthening, or a major runway expansion require a noise analysis including noise contour maps. PSC meets these criteria.

Noise is addressed in Chapter 7.

2.2.13 Socioeconomic Impacts

Airport development can cause induced affects on population movement and growth, public service demands, and changes in economic activity. Improvements at PSC are not expected to create significant change in population, public service, and economic activity, but are expected to have positive impacts through creation of employment opportunity, business growth, and economic activity. Resource agencies should be coordinated prior to implementation.

2.2.14 Water Quality

The Federal Water Pollution Control Act, as amended by the Clean Water Act (CWA), provides the authority to establish water quality standards, control discharges into surface and subsurface waters, develop waste treatment management plans and practices, and issue permits for discharges (section 402) and for dredged or fill material (section 404).

The Fish and Wildlife Coordination Act (FWCA) applies to a proposed federal action which would impound, divert, drain, control, or otherwise modify the waters of stream or body of water, unless the project is for the impoundment of water covering an area of less than ten acres. The FWCA requires consultation with the FWS and applicable state agencies to identify means to prevent loss and damage to wildlife resources resulting from improvements. Coordination with DOE will work to meet state water quality standards.

Surface drainage from improvements are expected to continue to be collected in drainage systems and conveyed to detention basins, to evaporate or percolate into the subsurface. Best management practices should be developed and employed, and construction should incorporate appropriate erosion control measures.

2.2.15 Wetlands

The CWA defines wetlands as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas”. Federal regulations require that proposed actions avoid, to the greatest extent possible, long-term and short-term impacts to wetlands, including the destruction and altering of the functions and values of wetlands.

A July 2009 review of National Wetland Inventory (NWI) data indicated wetland features on PSC property, north of Runway End 3L, east of Road 36. Field survey indicates that this wetland no longer exists.

A July 2009 review of NRCS data indicates that native soils generally consist of loamy fine sands. A July 2009 review of the Franklin County portion of the National Hydric Soils List indicates that these soil types are not listed as *hydric*, or wetland, soils. However, several soil types have potential wet spot components, where the saturation criteria could be potentially met to characterize the soil type as hydric, and wetted depressional land forms may contain hydric soils.

Airport operations and improvements should consider effect on wetlands. An October 2010 wetland survey, included in **Appendix D**, found no wetlands within a study area that consisted of land for a proposed parking lot expansion, and the realignment of Taxiway D. This is to be verified as part of the environmental reviews at the time of implementation for these and other airport improvement projects.

2.2.16 Wild and Scenic Rivers

The Wild and Scenic Rivers Act provides protection for certain free-flowing rivers, which have “outstanding or remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values”. A July 2009 review of the National Parks Service Wild and Scenic River Inventory System indicates no Wild and Scenic Rivers within or near PSC.

2.3 Summary

Among the ongoing aviation, social, and commercial activity, PSC is host, neighbor, benefactor, and beneficiary to environmental resources. Airport operations and development can and do occur in balance with the environmental resources on and surrounding PSC. Airport improvements require environmental processes and documentation prior to implementation. Consideration and coordination with agencies and regulation prior to airport improvement will allow PSC to continue to be a good steward of the environment.