

# **Appendix A**

## **Acronyms and Definitions**

## Acronyms

AC .....	Advisory Circular
ADG .....	Airplane Design Group
ADO .....	Airport District Office
AGL .....	Above Ground Level
AIM .....	Aeronautical Information Manual
AIP .....	Airport Improvement Program
ALP .....	Airport Layout Plan
ANM .....	FAA Northwest Mountain Region Division
ARC .....	Airport Reference Code
ARFF .....	Airport Rescue and Fire Fighting
ARP .....	Airport Reference Point
ARTCC .....	Air Route Traffic Control Center
ASDA .....	Accelerate-Stop Distance Available
ASV .....	Annual Service Volume
ATC .....	Air Traffic Control
ATCT .....	Air Traffic Control Tower
AVGAS .....	Aviation Gasoline
AWOS .....	Automated Weather Observing System
CFR .....	Code of Federal Regulations
CIP .....	Capital Improvement Plan
CWY .....	Clearway
dB .....	Decibel
dBA .....	A-weighted Decibels
DH .....	Decision Height
DME .....	Distance Measuring Equipment
DOT .....	Department of Transportation
EA .....	Environmental Assessment
EIS .....	Environmental Impact Statement
FAA .....	Federal Aviation Administration
FAR .....	Federal Aviation Regulations
FBO .....	Fixed Based Operator
GA .....	General Aviation
GPS .....	Global Positioning System

IFR .....	Instrument Flight Rules
INM .....	Integrated Noise Model
LDA .....	Landing Distance Available
LIRL .....	Low Intensity Runway Lights
MIRL .....	Medium Intensity Runway Lights
MSL .....	Mean Sea Level
NAVAIDS .....	Navigational Aids
NDB .....	Non-Directional Beacon
NEPA .....	National Environmental Policy Act
OFA .....	Object Free Area
OFZ .....	Obstacle Free Zone
PAPI.....	Precision Approach Path Indicator
RPZ .....	Runway Protection Zone
RSA .....	Runway Safety Area
RW .....	Runway
SEPA .....	State Environmental Protection Act
SWY .....	Stopway
TH .....	Threshold
TL .....	Taxilane
TODA .....	Take-Off Distance Available
TORA .....	Take-Off Run Available
TSA .....	Taxiway Safety Area
TW .....	Taxiway
VASI .....	Visual Approach Slope Indicator
VFR .....	Visual Flight Rules
VGSI.....	Visual Glide Slope Indicator
WSCASP .....	Washington State Continuous Airport System Plan
WSDOT .....	Washington State Department of Transportation

## Definitions

- Aeronautical Activity ..... Any activity commonly performed at airports involving, required for, or permitting the operation of aircraft, or required for or contributing to the safety of aircraft operations. Aeronautical activities include, but are not limited to: pilot training, aircraft rental, air taxi, charter operations, sightseeing, air carrier operations, aircraft repair and maintenance, sale of aircraft parts, sale of aviation fuels and petroleum products, air cargo, aerial crop applications, aerial photography, aerial surveying, aerial advertising, aircraft sales, aircraft storage, ultralight operations, skydiving, and power assisted hang gliding or parasailing.
- Aeronautical Service ..... Any service involving, required for or permitting the operation of aircraft or required for or contributing to the safety of aircraft operations. These services are commonly conducted on the airport by persons or businesses who lease facilities or have permission from the airport operator to provide such services.
- Air Taxi ..... An air carrier certificated in accordance with FAR Part 135 and authorized to provide, on demand, public transportation of persons and property by aircraft. Air taxi operators generally operate small aircraft “for hire” for specific trips.
- Aircraft Approach Category ..... A grouping of aircraft based on a speed of 1.3 times the stall speed in the landing configuration at maximum gross landing weight. The aircraft approach categories are:
- Category A - Speed less than 91 knots;
  - Category B- Speed 91 knots or more but less than 121 knots;
  - Category C - Speed 121 knots or more but less than 141 knots;
  - Category D - Speed 141 knots or more but less that 166 knots; and
  - Category E - Speed 166 knots or more.
- Aircraft Mix ..... The classification of aircraft into groups which are similar in size, noise, and operational characteristics. (Also see Fleet Mix.)

- Aircraft Operations ..... The airborne movement of aircraft. There are two types of operations: local and itinerant, defined as follows:
1. Local Operations are performed by aircraft which:
    - a... operate in the local traffic pattern or within sight of the airport;
    - b. . are known to be departing for or arriving from a local practice area.
  2. Itinerant operations are all others.
- Airfield ..... A defined area on land or water including any buildings, installations, and equipment intended to be used either wholly or in part for the arrival, departure, or movement of aircraft.
- Airplane Design Group ..... A grouping of airplanes based on wingspan. The groups are as follows:
- Group I: Up to but not including 49 feet (15 m).
  - Group II: 49 feet (15 m) up to but not including 79 feet (24 m).
  - Group III: 79 feet (24 m) up to but not including 118 feet (36 m).
  - Group IV: 118 feet (36 m) up to but not including 171 feet (52 m).
  - Group V: 171 feet (52 m) up to but not including 214 feet (65 m).
  - Group VI: 214 feet (65 m) up to but not including 262 feet (80 m).
- Airport ..... All of the property, buildings, facilities and improvements within the property boundaries of the airport as it now exists or will exist in the future. This area is defined on the Airport Layout Plan or Exhibit A.
- Airport Elevation ..... The highest point on an airport’s usable runway expressed in feet above mean sea level (MSL).
- Airport Layout Plan (ALP) ..... The plan of an airport showing the layout of existing and proposed airport facilities.

Airport Owner .....	The City of Westport and/or its designee who is charged with the operation and administration of the airport.
Airport Reference Point (ARP) ...	The latitude and longitude of the approximate center of the airport.
Airside .....	The runways, taxiways, aprons, ramps, buildings and facilities located inside the security fencing.
Airspace .....	The area above the ground in which aircraft travel. It is divided into corridors, routes, and restricted zones for the control and safety of aircraft.
Ambient Noise Level .....	Background noise level, exclusive of the contribution made by aircraft.
Annual Service Volume .....	A reasonable estimate of an airport's annual capacity. It accounts for differences in runway use, aircraft mix, weather conditions, etc., that would be encountered over a year's time.
Approach End of Runway .....	The near end of the runway as viewed from the cockpit of a landing aircraft.
Approach Surface .....	An imaginary surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of the runway based upon the planned approach. The inner edge of the approach surface is the same width as the primary surface and expands uniformly, depending upon the planned approach.
Approved Instrument Approach .	Instrument approach meeting the design requirement, equipment specifications, and accuracies, as determined by periodic FAA flight checks, and which are approved for general use and publication by the FAA.
Apron .....	A defined area where aircraft are maneuvered and parked, and where activities associated with the handling of flights can be carried out.

Automated Weather Observing System (AWOS) .....	An automatic recording instrument for measuring cloud height, visibility, wind speed and direction, temperature, and dew point.
Aviation Gasoline (AVGAS) .....	Fuel used in reciprocating (piston) aircraft engines. Avgas is manufactured in the following grades: 80/87; 100LL; 100/130; and 115/145.
Avigation Easement .....	A form of limited property right purchase that establishes legal land-use control prohibiting incompatible development of areas required for airports or aviation-related purposes.
Based Aircraft .....	Aircraft stationed at an airport.
CFR Part 77 .....	Federal Aviation Regulations which establish standards for determining obstructions in navigable airspace.
Circling Approach .....	An instrument approach procedure in which an aircraft executes the published instrument approach to one runway, then maneuvers visually to land on a different runway. Circling approaches are also used at airports that have published instrument approaches with a final approach course that is not aligned within 30 degrees of any runway.
Clearway .....	A clearway is an area available for the continuation of the take-off operation which is above as clearly defined area connected to and extending beyond the end of the runway. The area over which the clearway lies need not be suitable for stopping aircraft in the event of an aborted take-off. Clearways are applicable only in the take-off operations of turbine-engined aircraft.
Commercial Service or Activity ..	Any commerce, trade or business involved in the exchange of goods, property or services of any kind.
Conical Surface .....	A surface extending outward and upward from the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet.
Controlled Airspace .....	Airspace designated as continental control area, control area, control zone, or transition area within which some or all aircraft may be subject to air traffic control.

Critical Aircraft .....	The aircraft which controls one or more design items based on wingspan, approach speed and/or maximum certificated take-off weight. The same aircraft may not be critical to all design items.
Crosswind .....	When used concerning wind conditions, the word means a wind not parallel to the runway or the path of an aircraft.
dBA .....	Decibels measured on the A-weighted scale to factor out anomalies.
Decibel (dB) .....	The standard unit of noise measurement relating to a logarithm scale in which 10 units represents a doubling of acoustic energy.
Displaced Threshold .....	Actual touchdown point on specific runway designated due to obstructions which make it impossible to use the actual physical runway end.
Effective Runway Gradient .....	The maximum difference between runway centerline elevations divided by the runway length, expressed as a percentage.
Environmental Assessment (EA) .....	A report prepared under the National Environmental Policy Act (NEPA) analyzing the potential environmental impacts of a federally funded project.
Environmental Impact Statement (EIS) .....	A report prepared under NEPA fully analyzing the potential significant environmental impacts of a federally-funded project.
Federal Aviation Administration (FAA) .....	A branch of the US Department of Transportation responsible for the regulation of all civil aviation activities.
Final Approach .....	The flight path of an aircraft which is inbound to the airport on an approved final instrument approach course, beginning at the point of interception of that course and extending to the airport or the point where circling for landing or missed approach is executed.

Fixed Base Operation (FBO) .....	An individual or business property licensed and authorized by written agreement with the airport owner to provide specified aeronautical services at the airport, and who rents or leases facilities on the airport to conduct these services. These operators commonly occupy an office, hangar or shop on the airport, and are required to comply with the written agreements and referenced rules and regulations.
Fixed Wing .....	For the purposes of this report, any aircraft not considered rotorcraft.
Flying Club .....	A non-commercial organization established to promote flying. Activities include, but are not limited to, development of aeronautical skills such as pilotage, navigation, airmanship, and the awareness and appreciation of aviation requirements and techniques.
Fuel .....	Aviation gasoline, jet fuel, automotive fuel or diesel.
General Aviation .....	All civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire.
Global Positioning System (GPS) .....	A system of US satellites orbiting the earth which is used to instantly and accurately determine the navigational position of users on or above the earth's surface.
Hazard to Air Navigation .....	An object which, as a result of an aeronautical study, the FAA determines will have a substantial adverse effect upon the safe and efficient use of a navigable airspace by aircraft, operation of air navigation facilities, or existing or potential airport capacity.
Horizontal Surface .....	An elliptical surface at an elevation 150 feet above the established airport elevation created by swinging 5,000-foot radius arcs from the center of each end of the primary surface. Tangent lines then connect these arcs.

Independent Flight Instructor .....	A single individual, working alone and without employees, partners, or facilities on the airport who provides professional, licensed/certified flight instruction.
Independent Mechanic .....	A single individual, working alone and without employees, partners, or facilities on the airport who provides professional, certificated repair and/or maintenance services for aircraft or aeronautical components.
Instrument Flight Rules (IFR) .....	Instrument Flight Rules governing the procedures for conducting instrument flight. Pilots are required to follow these rules when operating in controlled airspace with visibility of less than three miles and/or ceiling lower than 1,000 feet.
Itinerant Operation .....	All aircraft operations at an airport other than local.
Landside .....	All buildings and surfaces on the airport used by pedestrian or surface vehicular traffic located outside the airport security fence. The entire Auburn airport is fenced, so this designation is not applicable here.
Large Airplane .....	An airplane of more than 12,500 pounds (5,700 kg) maximum certificated takeoff weight.
Local Operation .....	Aircraft operation in the traffic pattern or within sight of the tower, or aircraft known to be departing or arriving from flight in local practice areas, or aircraft executing practice instrument approaches at the airport.
Minimum Standards .....	Standards established by the airport owner as the minimum requirements to be met as a condition for the right to provide commercial services on the airport.

- Navigational Aid (NAVAID) ..... Any visual or electronic device airborne or on the surface which provides point-to-point guidance information or position data to aircraft in flight.
- Non-Aeronautical Service ..... Any service conducted on the airport that provides products or services that are not associated with aviation. These services are provided by persons or businesses who lease facilities or have permission from the airport operator to provide such services on the airport.
- Non-Directional Beacon (NDB) .. Non-Directional Beacon which transmits a signal on which a pilot may “home” using equipment installed in the aircraft.
- Object ..... Includes, but is not limited to above ground structures, NAVAIDs, people, equipment, vehicles, natural growth, terrain, and parked aircraft.
- Object Free Area (OFA) ..... An area on the ground centered on a runway, taxiway, or taxilane centerline provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.
- Obstacle Free Zone (OFZ) ..... The OFZ is the airspace below 150 feet (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway, and for missed approaches. The OFZ is subdivided as follows:
- Runway OFZ - The airspace above a surface centered on the runway centerline.
  - Inner-approach OFZ - The airspace above a surface centered on the extended runway centerline. It applies to runways with an approach lighting system.
  - Inner-transitional OPZ - The airspace above the surfaces located on the outer edges of the runway OFZ and the inner-approach OFZ. It applies to runways with approach visibility minimums lower than  $\frac{3}{4}$ -statute mile (1,200 m).

Obstruction to Air Navigation ....	An object of greater height than any of the heights or surfaces presented in Subpart C of the Code of Federal Regulation (14 CFR), Part 77. (Obstructions to air navigation are presumed to be hazards to air navigation until an FAA study has determined otherwise).
Precision Approach Path Indicator (PAPI) .....	A lighting system located along side of a runway which provides the pilot with position information related to the desired glide path to the runway. PAPIs contain red and white light units which are configured in a single row.
Primary Surface .....	A rectangular surface of a width specified in 14 CFR Part 77 (centered on the runway centerline) and a length that extends 200 feet beyond each end of the runway. The elevation of the primary surface corresponds to the elevation of the nearest point of the runway centerline.
Rotorcraft (Helicopter) .....	A heavier-than-air aircraft supported in flight by the reactions of the air on one or more power-driven rotors on substantially vertical axis.
Runway (RW) .....	A defined rectangular surface on an airport prepared or suitable for the landing or takeoff of airplanes.
Runway Blast Pad .....	A surface adjacent to the ends of runways provided to reduce the erosive effect of jet blast and propeller wash.
Runway Protection Zone (RPZ) ..	An area off the runway end to enhance the protection of people and property on the ground.
Runway Safety Area (RSA) .....	A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.
Segmented Circle .....	A system of visual indicators designed to provide traffic pattern information at airports without operating control towers.
Self-Fueling Operator .....	A person who dispenses aviation fuel to aircraft owned by that person, or leased from others and operated by that person.

Shoulder .....	An area adjacent to the edge of paved runways, taxiways, or aprons providing a transition between the pavement and the adjacent surface; support of aircraft running off the pavement; enhanced drainage; and blast protection.
Small Airplane .....	An airplane of 12,500 pounds (5,700 kg) or less maximum certificated takeoff weight.
Stopway (SWY) .....	A defined rectangular surface beyond the end of a runway prepared or suitable for use in lieu of runway to support an airplane, without causing structural damage to the airplane, during an aborted takeoff.
Taxilane (TL) .....	The portion of the aircraft parking area used for access between taxiways and aircraft parking positions.
Taxiway (TW) .....	A defined path established for the taxiing of aircraft from one part of an airport to another.
Taxiway Safety Area (TSA) .....	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.
Threshold (TH) .....	The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.
Touch and Go Operation .....	Practice flight performed by a landing touch down and continuous take-off without stopping or exiting the runway.
Transitional Surface .....	A sloping 7:1 surface that extends outward and upward at right angles to the runway centerline from the sides of the primary surface and the approach surfaces.
Ultralight .....	An aeronautical vehicle operated for sport or recreational purposes which does not require FAA registration, an airworthiness certificate, nor pilot certification. They are primarily single occupant vehicles, although some two-place vehicles are authorized for training purposes.
Utility Runway .....	A runway that is constructed for, and intended to be used by, aircraft of 12,500 pounds maximum gross weight and less.

Visual Approach Slope Indicator (VASI) .....	A lighting system located along side of a runway which provides the pilot with position information related to the desired glide path to the runway. VASIs are configured in bars (versus a single row like PAPIs)
Visual Flight Rules (VFR) .....	Visual Flight Rules by which aircraft are operated by visual reference to the ground. Weather conditions for flying under these rules must include a ceiling greater than 1,000 feet, three miles visibility, and standard cloud clearance.
Visual Runway .....	A runway without an existing or planned straight-in instrument approach procedure.
Wind Coverage .....	Wind coverage is the percent of time for which aeronautical operations are considered safe due to acceptable crosswind components.
Wind Rose .....	A scaled graphical presentation of wind information.

# **Appendix B**

## **Environmental Overview**

## ENVIRONMENTAL OVERVIEW

Environmental constraints for airports typically fall into two general categories: human environment and natural environment. Human factors that can constrain airports include existing settlements and incompatible land use, noise, social or socioeconomic conditions, light and glare, and the general controversial nature of airports. Natural environmental elements include air quality, water resources, fish and wildlife, hazardous materials, energy and other resource issues. **Exhibit 4A** depicts the existing environmental constraints at the Airport.

The purpose of this section is to provide a summary of the existing environmental setting of the Westport airport, and identifies any potential environmental constraints. The second part of the discussion of each environmental element includes a qualitative discussion of the potential impacts of the Preferred Alternative, including the need for additional studies and permits that would be needed in order to implement the elements of the Preferred Alternative.

Because the airport is not currently in the NPIAS system, some of the Federal requirements are not currently applicable, but are mirrored in Washington's environmental legislation. They are included in the event that Westport joins the NPIAS system.

### Human Environment

**Controversy.** This is one of the first questions to be addressed under the NEPA review process, as it helps the airport sponsor shape their environmental review and public involvement process: Is the proposed project likely to be highly controversial on environmental grounds?

A proposed Federal action is considered highly controversial when the action is opposed on environmental grounds by a Federal, state, or local government agency, or by a substantial number of the persons affected by such action.

The Preferred Alternative, including the full-length parallel taxiway, may generate some controversy as related to estuary fill, wetland impact and potential for impacts to water quality (with secondary impacts to fisheries and oyster farming).

**Noise.** The airport currently supports about 11,400 annual operations based on the Inventory chapter of the ALP. Most of these are single engine propeller aircraft. Noise for airports is typically measured using a weighted average, where nighttime noise is given more weight. This measurement is often expressed as a weighted average, where noise during nighttime hours is weighted more than daytime noise, and is referred to as DNL. The typical threshold of concern is when the 65 decibel DNL contour extends over noise sensitive land uses, such as housing, schools or churches. Another threshold of significance is 90,000 annual adjusted propeller operations or 700 annual adjusted jet operations. The current usage of the airport is well below this level. The level of operations at Westport has not been modeled to develop noise contours.

The FAA and State threshold for noise impact is when the project increase noise exposure levels 1.5 DNL or more over noise sensitive areas (residential homes, schools, health facilities,

churches, cultural or historic sites) within the 65 DNL contour. Such an impact will require mitigation to reduce the impact below the 1.5 DNL threshold. Such mitigation could include alteration to approach and departure patterns, acquisition of additional property around the airport, or limitations on certain types of aircraft.

Projects which cause an increase or change in the number and type of aircraft operations and flight paths that would fly over public recreation areas, wildlife refuges or other “Section 4(f)” properties is also a threshold of concern. For example, there is undeveloped City park land south of the airport. Noise contours should be prepared at the time of proposed runway extension.

**Land Use.** Land use issues associated with airports typically relate to the compatibility of surrounding uses. This issue is discussed in detail in the Land Use section in the Inventory chapter.

For the pre-implementation environmental review, this topic addresses whether the preferred alternative is reasonably consistent with plans, goals, policies, or controls that have been adopted for the area in which the airport is located.

As discussed in the Airport Layout Plan narrative, the City is planning to pursue acquisition of either easements or land within the RPZs to ensure that incompatible uses do not develop. In addition, the City should review future land use applications within two miles of the airport to ensure that hazards such as bird attractions (wetland mitigation sites, landfills, food processing) or visual hazards (plants that generate large amounts of steam, smoke or dust) are not located in the airport approach areas.

**Social Impact and Induced Socioeconomic Issues.** Social impacts are typically related to relocation of businesses, residences or the alteration of established patterns of life (e.g. roadway changes, new facilities that divide a community, etc.) Westport’s airport includes a significant amount of land, but it is located on the edge of the community, and does not divide the community. Its location does provide some buffering between the industrial uses to the north of the airport and residential and future recreational uses to the south. As such, the impact of the airport on community activities is relatively low.

Socioeconomic issues include the potential for the airport to provide an economic attraction to the community, including on-airport jobs, off-airport jobs that are the direct result of airport activities, or some attraction that provides incentive to use the airport. The airport currently has no on-airport businesses. The airport provides a positive economic benefit to the community by providing access for clients visiting Westport Shipyards. The airport is also an amenity for potential investors in the resort and vacation home developments that are in the early stages of development. Finally, the airport provides a destination for people interested in flying out for a day at the coast.

Local population growth, especially related to resort and vacation home development, may cause demand for services at the airport to increase. Typically, increased population brings an increase in the number of registered pilots and aircraft. This is discussed more thoroughly in the chapter on forecasting.

The preferred alternative does not appear to require the relocation of any residents or businesses. The “Recommended Property Line” as shown on Exhibit 4H appears to cut through some residential properties. If these properties are rendered un-usable, then residents will need to be relocated. WSDOT has a formal process for property acquisition and relocation that would need to be followed.

The landside improvements proposed in the Preferred Alternative could have a positive economic impact in providing revenue to the City and possible businesses, such as an FBO or aircraft maintenance business.

***Environmental Justice.*** Environmental justice is a specific category of socioeconomic impact that addresses whether a facility places a disproportionate burden on a population that is otherwise subject to perceived discrimination or other burden. This typically includes residential concentrations off the ends of runways or in approach patterns, where noise or vibration is perceived as an impact. Traffic and access may also be considered as an impact.

A review of local Census information, as well as a visit to the airport community suggests that there do not appear to be populations meeting the definition within the immediate airport vicinity. At the present time, there do not appear to be populations that are subject to discrimination within the airports noise or other impact areas.

At the time the preferred alternative is developed, including southern runway extension, a review of census and demographics may be desirable to ensure that no disproportionate impacts occur.

***Historic Properties, Cultural Resources (Section 106 Resources).*** The Airport does not appear to have any structures that are eligible for inclusion in the National Register of Historic Places. Any development in coastal areas in Western Washington has the potential for cultural resource concerns, as much of the area was used by indigenous peoples as fishing and hunting grounds.

Under FAA regulations, any activity in previously undisturbed areas requires a cultural resources report and consultation with the State Historic Preservation Office and the local tribes. Any wetland permit requiring Corps approval also must have a cultural resources sign-off.

The Preferred Alternative involves expansion into tidal marsh areas where ground modifications have not occurred. Therefore, consultation with the SHPO and local tribes will be required. This will include a site survey to identify the potential for any significant architectural, prehistoric, historic, archeological, or paleontological resources to be lost or destroyed as a result of the project.

Consultation with local tribes should include resolution of any concerns and ideas for mitigation of any potential impacts.

***Recreational Lands (Section 4(f)) Resources.*** The Grays Harbor Estuary provides numerous recreational opportunities. There is also an undeveloped City-owned park site to the south of the

airport. As the airport expands, impacts to recreational resources need to be identified to ensure that a “taking” does not occur.

Any impact to publicly owned land from a public park, recreation area, or wildlife or waterfowl refuge of national, state or local significance, or land of an historic site of national, state or local significance must be reviewed if there is an increase in the number of aircraft or the size of aircraft anticipated as a result of the proposed project. Increases due to general growth are treated differently from increases that are due to capacity changes or improvements to allow a change in aircraft design group.

Aircraft using the airport currently impacts a variety of public recreation areas, from the beaches and harbor, to the estuary. Implementation of the preferred alternative will not increase these impacts beyond what would otherwise occur from growth in airport use, with the exception of potential noise increases at the park site south of the runway. If the site is not formally designated as a park at the time of the development, there will be no impact. If the park is developed, there may be an impact that will need to be reviewed.

***Farmland Preservation.*** Expansion of the airport needs to consider the impacts on farmland, particularly the loss of farmland. Federal and state laws require the review of any airport action that would remove farmland, as defined by soil classification or actual use, from active or potential agricultural use. Any property acquisition that would result in a loss of farmland would need to be evaluated using the procedures outlined by the Natural Resource Conservation Service (the federal agency charged with farmland preservation).

The site has not been used for agriculture. None of the land being acquired either under easement or outright purchase is agricultural. A review of Natural Resource Conservation Service maps shows that the soils in the airport vicinity do not meet “prime” or “unique” farm soil classifications. This category of impact is not an issue.

***Light and Glare.*** The airport currently has minimal lighting. Navigation aids provide guidance to aviators, and there is some lighting in the tie-down and hangar area. Navigational lighting is focused for visibility by aviators, without creating a disturbance or distraction. Any additional facilities will need to consider the impact of light and/or glare, including the use of windows or roofing material, on aviation and surrounding residents. Any additional lighting or structures will need to be focused such that light or glare is not projected into the community, such that it creates a disturbance.

## **Natural Factors**

***Air Quality.*** Air quality can be a concern in a regional context or in a local, or “hot spot” context. Regional air quality typically relates to six criteria pollutants, including ozone, particulates, carbon monoxide, sulfur dioxide, lead and nitrogen oxide. Regions are considered “maintenance” if the area is marginal in meeting established criteria for each pollutant. Hot spots are typically locations where traffic congestion or an industrial source creates a concentration of criteria pollutants. Any aviation capacity increases proposed by the Master Plan may need to undergo

review for air quality impact. Any construction impacts will need to consider the impact of particulate material on the local environment, including water quality and other resources.

The Westport area is not within an area where air quality is a concern. Such areas are classified as either non-attainment or maintenance areas. There are no “air quality hot spots” for surface transportation facilities in the airport vicinity.

During construction, airborne dust and exhaust from construction vehicles may need to be monitored and managed to reduce impacts to nearby residents.

**Water Quality.** Water quality is typically a function of stormwater run off volume and the provision of features to remove impurities and reduce temperature impacts before the runoff reaches a major water body. The airport includes a system of drainage ditches and swales that help capture sediment and convey stormwater to the estuary. Any alternations to this system will likely require a permit under the National Pollution Discharge Elimination System (NPDES). Water quality is also affected by temperature, as warmer water can have an adverse effect on native fish and plants.

Because of the airport’s location adjacent to a significant water resource, storm water drainage and water quality features will need to be included in the design of any new paved areas. In addition, the link between wetland fill, water quality, and commercial or endangered fish species, will require that an assessment be prepared for any portion of the preferred alternative that will increase impervious surface. The assessment will need to show how the various man-made and natural water quality features will accommodate or be enhanced to ensure that water quality is not degraded.

**Plants and Animals, Including Endangered and Threatened Species and Essential Fish Habitat (MSA resources).** The Estuary is a popular recreational and commercial fishery. Westport harbor supports commercial and recreational tuna, salmon and crab fishing fleets. Inner areas of the estuary support oyster farms. The estuary environs also is home to a variety of wildlife, including migratory and resident shorebirds and waterfowl.

Migratory birds are protected under the federal migratory bird treaty act, while commercial fish species and their habitats are protected under the Magnuson-Stevens Act. Additional species whose populations are in significant decline are protected under state and/or federal endangered species acts.

At the time a project is defined, species lists may be obtained from the state and federal agencies that manage these species (Washington Fish and Wildlife, NOAA Fisheries, US Fish and Wildlife Service, Washington Natural Heritage Office).

Potential impacts to listed endangered and threatened species, protected under federal or state legislation will need to be considered for any airport actions. In addition, the Magnuson-Stevens Act protects critical habitat for commercial fish species.

The wetland areas on the airport and areas surrounding the airport are vegetated with native wetland species, as well as invasive blackberry. Over time, invasive species that typically out-compete native species for survival.

The preferred alternative includes disturbances to wetlands and occurs in a marine environment. Any filling or ground disturbance will trigger a review for impacts to endangered terrestrial and aquatic species, as well as Essential Fish Habitat (EFH). This document is often called a Biological Assessment, and follows a prescribed process to determine effects on listed species. The City and/or WSDOT-Aviation would consult with NOAA Fisheries, US Fish and Wildlife and Washington Fish and Wildlife, if the determination is that a negative effect is anticipated.

***Wetlands and Floodplains.*** The Army Corps of Engineers and the Washington Department of Ecology are the agencies charged with regulating wetlands. The area between the runway and taxiway, as well as much of the area along the east side of the runway, was developed as a wetland mitigation site. These areas likely can be altered, with appropriate compensatory mitigation, citing airport safety needs. The area surrounding the runway on the south and east sides is also predominantly wetland. In order to implement any runway improvements, the areas will need to be formally delineated and the combined State/Federal process followed.

Floodplains are also generally a concern in low-lying tidal areas. Federal and state laws regulate development in floodplains, especially development that could either raise base flood levels through adding significant amounts of fill, or by creating development that is easily damaged by flooding (e.g. residential uses). The airport appears to be in zone A3, based on a review of the Flood Insurance Rate Map (FIRM) for the area. The A3 zone is within the 100 year floodplain defined as areas of shallow flooding 1-3 feet.

The project area will need to undergo a formal wetland delineation. Wetland delineations are valid for three years, so it may not be feasible to delineate the entire airport at one time. The delineation is submitted to the US Army Corps of Engineers and the Washington State Department of Ecology for concurrence. As the design of the improvements progresses, the area of impact is identified and a functional assessment is conducted for the impacted areas. These functions include determinations of wildlife habitat, water quality, and fish habitat. In addition, a mitigation site needs to be identified. The site needs to be in the same general vicinity of the airport, but at least two miles from the airport (to avoid creating a birdstrike hazard). The site needs to have enough area to allow mitigation to take place. The area of mitigation is determined, in part, by the size of the area being affected and its function, and in part, by the existing features and functions at the mitigation site. For example, if the mitigation site were considered “restoration,” more land would be needed than if the site were considered “creation.”

A review of the FEMA maps current at the time development is proposed will be required. Design of the new berm will be required to withstand a prescribed amount of flooding and tidal action.

***Energy Supply and Natural Resources.*** This category focuses on the impact of airport actions on energy and natural resources not already discussed. Typically the resources include those used in construction materials (asphalt, sand, gravel, concrete). In general, construction materials are not in short supply. Fuel for construction equipment is available nearby. The site has adequate electrical supply to provide power to navigation aids and security lighting on the airport.

The proposed improvements are not anticipated to place a burden on energy or natural resources in the Airport area.

***Solid Waste.*** General aviation airports typically do not generate significant amounts of solid waste. Often the waste that is generated includes food and beverage containers and packaging for aircraft maintenance products. Open waste collection bins may create a bird and rodent attractant, which can be problematic for aviation operations.

Other solid waste materials may be generated during construction. These include pavement materials being removed. The current trend in construction is to recycle the old material into the new pavement, reducing the need for disposal.

Plans for future activity at the airport should consider the manner in which waste is collected and removed so that food or other waste materials do not attract scavenging wildlife to the airport.

Construction of the preferred alternative will require clearing and grading, as well as possibly removing some wetland soils. These will need to be disposed of. In some cases, these soils can be imported to the mitigation site.

***Hazardous Materials.*** Hazardous materials issues typically occur when there is on-airport fuel or an aircraft maintenance provider. Neither of these has been available at Westport. Aircraft crashes, former industrial operations, vandalism, or construction waste dumping are other potential sources. Contaminants can include petroleum, other hydrocarbons, asbestos construction materials, fertilizers, and pesticides. It appears that none of these activities have affected the Westport airport. There is a pile of construction material to the south of the existing hangar. City officials state that there are no contaminants in these materials.

Any areas where construction is proposed or land being acquired would need to undergo some level of research, such as a “Phase One Environmental Site Assessment” to identify any history of possible contamination. A Phase One ESA is a prescribed process to review a site through a review of records and physical inspection, to identify the potential for contamination.

On any construction site, there is the potential for spills. As part of design, a spill prevention and countermeasures plan should be developed and implemented as part of construction.

If excavation identifies any suspicious material, construction should be stopped and a hazardous materials specialist should be contacted.

**Construction Impacts.** Construction of the preferred alternative will likely produce construction impacts, such as increases in localized noise levels, reduce localized air quality, produce erosion or pollutant runoff. As part of project design, measures to reduce these impacts should be specified, including limited hours of construction (noise), barriers and fencing (erosion and contamination), site watering (dust reduction). Other construction processes, including seasonal timing, phasing, and mitigation measures need to be considered to reduce impacts to water quality and comply with rules regarding in-water work for fish habitat.

**Coastal Zone Management Program.** The City is responsible for implementing Washington’s Shoreline Management Act. At the time of development, the City will need to ensure that the proposed airport actions are consistent with the City’s Shoreline Management Plan.

**Wild and Scenic Rivers.** There are no designated Wild and Scenic Rivers or Study Rivers in the project vicinity.

**Cumulative Impacts.** SEPA and NEPA require consideration of the proposed improvements together with other past, present, and reasonably foreseeable future development projects on or off the airport, federal or non-federal, to ensure that the proposed project would not produce a significant cumulative effect on any of the environmental impact categories above.

## **SUMMARY**

Nearly any action that requires a government approval in Washington State requires a review under the State Environmental Policy Act. This can be a simple checklist developed and processed by the City, or the nature of the project may require a detailed environmental impact statement (EIS). In general, the key environmental issues that will need to be addressed for implementation of any action at the Westport Airport include noise, endangered species/essential fish habitat, cultural resources and wetlands/water quality. The following table summarizes the anticipated study and permitting requirements for each element of the preferred alternative.

If the airport becomes a NPIAS airport, the additional requirement of the National Environmental Policy Act will apply to projects with federal funding. Projects such as additional privately funded hangars would not need NEPA review. Some items are shown as “NEPA TBD” because the environmental review requirement is “to be determined.” In some cases, the need to prepare an Environmental Assessment (EA) under NEPA or an EIS under SEPA is contingent on the amount of impact. It may be desirable to review some of the linked projects together, such as the runway extension, widening and RSA expansion. This is will help in identifying cumulative impacts, as well as meet the needs of agencies such as the Corps of Engineers.

### Anticipated Environmental Review Requirements

Action	SEPA/ NEPA	Noise	ESA/EFH	Cultural Resources	Wetlands	Other Issues
Runway extension to north and south	SEPA EIS NEPA EA	Noise contours prepared for entire preferred alternative	Biological Assessment (BA)	Site study and SHPO/tribe consultation	Delineation, impact assessment, permit, mitigation	Potential property acquisition/relocation
Runway widening	SEPA EIS NEPA EA	Minimal impact	BA	Site study/consultation	As above	
Runway safety area expansion	SEPA EIS NEPA EA	Minimal impact	BA	Site study/consultation	As above	
Partial Parallel Taxiway on west side	SEPA TBD NEPA TBD	Minimal impact	BA	Not likely needed	As above	
Full Parallel Taxiway on east side	SEPA EIS NEPA EA	Minimal impact	BA	Site study/consultation	As above	
Implement GPS approach	SEPA checklist	Minimal impact	Studies not likely needed unless areas require substantial earthwork, filling, or increases in impervious surfaces.			
Pilots Lounge and Hangars	SEPA checklist	Minimal impact				
Develop FBO	SEPA checklist	Minimal impact				Fuel storage permits etc needed from Dept. of Ecology
Land Acquisition	SEPA Expanded checklist or EIS Depending on # of relocations	Minimal impact				Appraisals and other procedural requirements.