Glossary of Terms

Air Operations Areas (AOA). Any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft.

Airport Certification Manual (ACM). The ACM is a document that FAA requires airports to produce in accordance with requirements contained in Title 14, Code of Federal Regulations (CFR) Part 139, Certification of Airports. The ACM serves as the bridge between the requirements of Part 139 and their application to a particular airport, taking into account the airport's size, type/level of activity, and configuration. For additional information, please refer to FAA Advisory Circular (AC) 150/5210-22 (FAA 2004c).

Airport wildlife biologist. A qualified airport wildlife biologist is a wildlife biologist capable of conducting a hazardous wildlife assessment. For certificated airports, this biologist must meet the qualifications in FAA Advisory Circular 150/5200-36 (FAA 2006c).

Airports District Office (ADO). The Seattle ADO is responsible for Idaho, Oregon, and Washington and may be reached at:

U.S. Department of Transportation
Federal Aviation Administration
Northwest Mountain Region
Seattle Airports District Office
1601 Lind Avenue, S.W., Suite 250
Renton, WA 98057-3356
Voice: (425) 227-2650
Fax: (425) 227-1650

Airside. Any location where aircraft operations, fueling, maintenance, or support activities are conducted. The AOA is included in the airside area.

Basic water quality treatment (versus *enhanced water quality treatment*). The Washington State Department of Ecology's performance goal is to achieve 80 percent removal of total suspended solids for influent concentrations that are greater than 100 mg/l, but less than 200 mg/l. For influent concentrations greater than 200 mg/l, a higher treatment goal may be appropriate. For influent concentrations less than 100 mg/l, the facilities are intended to achieve an effluent goal of 20 mg/l total suspended solids.

Basin. The area of land drained by a river and its tributaries, which drains water, organic matter, dissolved nutrients, and sediments into a lake or stream (see *watershed*). Basins typically range in size from 1 to 50 square miles.

Basin plan. A plan that assesses, evaluates, and proposes solutions to existing and potential future impacts on the physical, chemical, and biological properties and beneficial uses of waters

of the state within a drainage basin. A plan should include but not be limited to recommendations for the following elements:

- Stormwater requirements for new development and redevelopment
- Capital improvement projects
- Land use management through identification and protection of critical areas, comprehensive land use and transportation plans, zoning regulations, site development standards, and conservation areas
- Source control activities, including public education and involvement, and business programs
- Other targeted stormwater programs and activities, such as maintenance, inspections, and enforcement
- Monitoring
- An implementation schedule and funding strategy.

A basin plan that is adopted and implemented must have the following characteristics:

- Adoption by legislative or regulatory action of jurisdictions with responsibilities under the plan
- Recommended ordinances, regulations, programs, and procedures that are in effect or scheduled to go into effect
- An implementation schedule and funding strategy in progress.

Best management practices (BMPs). The structural devices, maintenance procedures, managerial practices, prohibitions of practices, and schedules of activities that are used singly or in combination to prevent or reduce the detrimental impacts of stormwater, such as pollution of water, degradation of channels, damage to structures, and flooding.

Biofiltration. The process of reducing pollutant concentrations in water by filtering the polluted water through biological materials, such as vegetation.

Bioinfiltration. The process of reducing pollutant concentrations in water by infiltrating the polluted water through grassy vegetation and soils into the ground.

Clearway (CWY). A defined rectangular area beyond the end of a runway cleared or suitable for use in lieu of runway to satisfy takeoff distance requirements. This is the region of space above an inclined plane that leaves the ground at the end of the runway.

Closed depression. A low-lying area that has either no surface water outlet or such a limited surface water outlet that during storm events, the area acts as a retention basin.

Compaction. The densification, settlement, or packing of soil in such a way that its permeability is reduced. Compaction effectively shifts the performance of a hydrologic group to a lower permeability hydrologic group. Compaction may also refer to the densification of a fill by mechanical means.

Converted pervious surface. Land cover changed from native vegetation to lawn, landscape, or pasture areas. (See also *pollution-generating impervious surface*.)

Critical areas. At a minimum, areas that include wetlands; areas with a critical recharging effect on aquifers used for potable water; fish and wildlife habitat conservation areas; frequently flooded areas; geologically hazardous areas, including unstable slopes; and associated areas and ecosystems.

Design flow rate. The maximum flow rate to which certain runoff treatment BMPs are designed for required pollutant removal. Biofiltration swales, vegetated filter strips, and oil/water separators are some of the runoff treatment BMPs that are sized based on a design flow rate.

Design storm. A rainfall event of specified size and return frequency (see Design storm frequency) that is used to calculate the runoff volume and peak discharge rate to a stormwater facility. A prescribed hyetograph and total precipitation amount (for a specific duration recurrence frequency) are used to estimate runoff for a hypothetical storm for the purposes of analyzing existing drainage, designing new drainage facilities, or assessing other impacts of a proposed project on the flow of surface water. (A hyetograph is a graph of percentages of total precipitation for a series of time steps representing the total time during which the precipitation occurs.)

Design storm frequency. The anticipated period in years that will elapse before a storm of a given intensity and/or total volume will recur, based on average probability of storms in the design region. For instance, a 10-year storm can be expected to occur on the average once every 10 years. Facilities designed to handle flows that occur under such storm conditions would be expected to be surcharged by any storms of greater amount or intensity.

Detention. The temporary storage of stormwater runoff in a stormwater facility, which is used to control the peak discharge rates and provide gravity settling of pollutants; the release of stormwater runoff from the site at a slower rate than it is collected by the stormwater facility system, with the difference held in temporary storage.

Dispersion. Release of surface water and stormwater runoff from a drainage facility system in such a way that the flow spreads over a wide area and is located so as not to allow flow to concentrate anywhere upstream of a drainage channel with erodible underlying granular soils.

Effective impervious surface. Replaced impervious surfaces minus those new and applicable replaced impervious surfaces that are noneffective impervious surfaces.

Energy dissipater. A means by which the total energy of flowing water is reduced, such as rock splash pads, drop manholes, concrete stilling basins or baffles, and check dams. In stormwater design, an energy dissipater is usually a mechanism that reduces velocity prior to or at discharge from an outfall to prevent erosion.

Enhanced runoff treatment, enhanced water quality treatment (versus *basic water quality treatment*). The use of runoff treatment BMPs designed to capture dissolved metals at a higher rate than basic treatment BMPs.

Erosion and sedimentation control (ESC). Any temporary or permanent measures taken to reduce erosion, trap sediment, and ensure that sediment-laden water does not leave the site.

Existing site conditions. The conditions (ground cover, slope, drainage patterns) of a site as they existed on the first day that the project entered the design phase.

Filter strip. A grassy area with gentle slopes that treats stormwater runoff from adjacent paved areas before it can concentrate into a discrete channel.

Flow control facility. A drainage facility (BMP) designed to mitigate the impacts of increased surface water and stormwater runoff flow rates generated by development. Flow control facilities are designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration, and/or infiltration into the ground, or to hold runoff for a short period of time, and then release it to the conveyance system at a controlled rate.

Hydrologic soil groups. A soil characteristic classification system defined by the U.S. Soil Conservation Service in which a soil may be categorized into one of four soil groups (A, B, C, or D) based on infiltration rate and other properties (based on *Water Quality Prevention, Identification, and Management of Diffuse Pollution* [Novotny and Olem 1994]):

- **Type A** – Low runoff potential. Soils with high infiltration rates, even when thoroughly wetted, and consisting chiefly of deep, well-drained to excessively drained sands or gravels. These soils have a high rate of water transmission.
- **Type B** – Moderately low runoff potential. Soils with moderate infiltration rates when thoroughly wetted, and consisting chiefly of moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission.
- **Type C** – Moderately high runoff potential. Soils with slow infiltration rates when thoroughly wetted, and consisting chiefly of soils with a layer that impedes downward movement of water, or soils with moderately fine to fine textures. These soils have a slow rate of water transmission.

- **Type D** – High runoff potential. Soils with very slow infiltration rates when thoroughly wetted, and consisting chiefly of clay soils with a high swelling potential; soils with a permanent high water table; soils with a hardpan, till, or clay layer at or near the surface; soils with a compacted subgrade at or near the surface; and shallow soils or nearly impervious material. These soils have a very slow rate of water transmission.

Impervious surface. A hard surface area that either prevents or retards the entry of water into the soil mantle as occurs under natural conditions (prior to development), and from which water runs off at an increased rate of flow or in increased volumes. Common impervious surfaces include but are not limited to rooftops, walkways, runways, taxiways, parking lots, storage areas, gravel roads, packed earthen materials, and other concrete, asphalt, or oiled surfaces. Open, uncovered retention/detention facilities are not considered impervious surfaces for the purpose of determining whether the thresholds for application of minimum requirements are exceeded. Open, uncovered retention/detention facilities are considered impervious surfaces for the purpose of runoff modeling.

Industrial activities. Material handling, transportation, or storage; manufacturing; maintenance; treatment; or disposal. Areas with industrial activities include plant yards; access roads and rail lines used by carriers of raw materials, manufactured products, waste material, or byproducts; material handling sites; refuse sites; sites used for the application or disposal of process waste waters; sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas for raw materials and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater.

Infiltration rate. The rate, usually expressed in inches per hour, at which water moves downward (percolates) through the soil profile. Short-term infiltration rates may be inferred from soil analysis or texture, or derived from field measurements. Long-term infiltration rates are affected by variability in soils and subsurface conditions at the site, the effectiveness of pretreatment or influent control, and the degree of long-term maintenance of the infiltration facility.

Jurisdictional wetland. A jurisdictional wetland as defined under Section 404 of the Clean Water Act, is a wetland that is connected to a Water of the United States (WOUS) using the U.S. Army Corps of Engineers (Corps) definition of WOUS. If an area meets the three standard wetland criteria (hydric soils, hydrology, and hydrophytic vegetation) and is connected to a WOUS, then it is considered a jurisdictional wetland and is regulated by the Corps. Because the connectedness of a wetland to a WOUS is not always easily defined, it is critical to get a jurisdictional determination, in writing, from the Corps, as early as possible in the project planning process.

Landside. Areas of the airport outside of the AOA (e.g., parking, rental car lots, and terminals).

Landslide hazard areas. Those areas subject to a severe risk of landslide.

Level spreader. A temporary erosion and sedimentation control device used to distribute stormwater runoff uniformly over the ground surface as sheet flow (i.e., not through channels) to enhance infiltration and prevent concentrated, erosive flows.

Low-impact development (LID). An evolving approach to land development and stormwater management that uses a site's natural features and specially designed BMPs to manage stormwater; it involves assessing and understanding the site, protecting native vegetation and soils, and minimizing and managing stormwater at the source. Low-impact development practices are appropriate for a variety of development types.

Low-permeability liner. A layer of compacted till or clay, or a geomembrane.

Manning's equation An equation used to predict the velocity of water flow in an open channel or pipeline:

$$V = (1.486(R^{2/3})(S^{1/2}))/n$$

where:

V = the mean velocity of flow in feet per second

R = the hydraulic radius in feet

S = the slope of the energy gradient or, for assumed uniform flow, the slope of the channel in feet per foot

n = Manning's roughness coefficient or retardance factor of the channel lining.

Media filter. A filter that includes material for removing pollutants (e.g., compost, gypsum, perlite, zeolite, or activated carbon).

Media filter drain. A stormwater treatment facility constructed in the pervious shoulder area of a roadway, consisting of a vegetation-covered french drain containing filter media. Also referred to as an ecology embankment.

Mitigation. Measures to reduce adverse impacts on the environment, in the following order of preference:

1. Avoid the impact altogether by not taking a certain action or part of an action.
2. Minimize the impact by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.
3. Rectify the impact by repairing, rehabilitating, or restoring the affected environment.

4. Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action.

5. Compensate for the impact by replacing, enhancing, or providing substitute resources or environments.

Monitoring. The collection of data by various methods for the purposes of understanding natural systems and features, evaluating the impacts of development proposals on such systems, and assessing the performance of mitigation measures imposed as conditions of development.

National Pollutant Discharge Elimination System (NPDES). The part of the federal Clean Water Act that requires point source dischargers to obtain permits, called NPDES permits, which in Washington State are administered by the Department of Ecology.

Native growth protection easement (NGPE). An easement granted for the protection of native vegetation within a sensitive area or its associated buffer.

Native vegetation. Vegetation consisting of plant species other than noxious weeds that are indigenous to the region and that reasonably could be expected to occur naturally on the site.

New impervious surfaces. Those surfaces that expand paved areas, and those surfaces that are upgraded from gravel to bituminous surface treatment (BST), asphalt, or concrete pavement. For the purpose of conducting a flow control analysis, the representative predeveloped land cover directly below the new impervious surface shall be based on the predominant land cover adjacent to the existing paved areas.

Noneffective impervious surfaces. Those new, applicable replaced, or existing impervious surfaces that are being managed by dispersion areas meeting the dispersion BMP criteria in the HRM. The equivalent area concept generally applies to engineered dispersion areas and may apply to natural dispersion areas, as described in the following: The existing site currently collects runoff in a ditch or pipe and discharges it to a surface water. By changing this condition to a natural dispersion situation through sheet flow or channelized flow dispersion, a surface discharge is eliminated, resulting in a flow control improvement. Equivalent area trades for natural dispersion are allowed for this specific case.

Noneffective pollution-generating impervious surface (PGIS). Those new, applicable replaced, or existing PGIS surfaces that are being managed by dispersion areas meeting the dispersion BMP criteria in the HRM. The equivalent area concept generally applies to engineered dispersion areas and may apply to natural dispersion areas, as described in the following: The existing site currently collects runoff in a ditch or pipe and discharges to a surface water. By changing this condition to a natural dispersion situation through sheet flow or channelized flow dispersion, a surface discharge is eliminated, resulting in a flow control improvement. Equivalent area trades for natural dispersion are allowed for this specific case.

Nonroad-related project. A project involving structures, including rest areas, maintenance facilities, and ferry terminal buildings.

Object-Free Area (OFA). An area on the ground centered on a runway, taxiway, or taxi-lane centerline provided to enhance the safety of aircraft operations by having the area free of aboveground objects protruding above the Runway Safety Area (RSA, defined below) edge elevation, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.

Off-line facilities. Runoff treatment facilities to which stormwater runoff is restricted to some maximum flow rate or volume by a flow-splitter.

Oil control. The treatment of stormwater runoff with BMPs to remove oil, grease, and total petroleum hydrocarbons (TPH).

Oil/water separator. A vault, usually underground, designed to provide a quiescent environment to separate oil from water.

On-line facilities. Runoff treatment facilities that receive all the stormwater runoff from a drainage area. Flows above the runoff treatment design flow rate or volume are passed through at a lower percentage removal efficiency.

Orifice. An opening with closed perimeter, usually sharp-edged, and of regular form in a plate, wall, or partition through which water may flow; generally used for the purpose of measurement or control of water.

Outfall. Any location where concentrated stormwater runoff leaves the right-of-way. Outfalls may discharge to surface waters or groundwater.

Outlet protection. A protective barrier of rock, erosion control blankets, vegetation, or sod constructed at a conveyance outlet.

Overflow. A pipeline or conduit device with an outlet pipe that provides for the discharge of portions of combined sewer flows into receiving waters or other points of disposal, after a regular device has allowed the portion of the flow that can be handled by interceptor sewer lines and pumping and treatment facilities to be carried by and to such water pollution control structures.

Peak discharge. The maximum instantaneous rate of flow during a storm, usually in reference to a specific design storm event.

Pollution-generating impervious surface (PGIS). An impervious surface that is considered a significant source of pollutants in stormwater runoff, including surfaces that receive direct rainfall (or run-on or blow-in of rainfall) and are subject to vehicular use; industrial activities; or storage of erodible or leachable materials, wastes, or chemicals. Erodible or

leachable materials, wastes, or chemicals are substances that, when exposed to rainfall, measurably alter the physical or chemical characteristics of the rainfall runoff. Examples include erodible soils that are stockpiled, uncovered process wastes, manure, fertilizers, oily substances, ashes, kiln dust, and garbage container leakage. Metal roofs are also considered pollution-generating impervious surfaces unless they are coated with an inert, nonleachable material (e.g., baked-on enamel coating). A surface, whether paved or not, is considered subject to vehicular use if it is regularly used by motor vehicles. The following are considered regularly used surfaces: roads, unvegetated road shoulders, bicycle lanes within the travel lane of a roadway, driveways, parking lots, unfenced fire lanes, vehicular equipment storage yards, and airport runways. The following are not considered regularly used surfaces: paved bicycle pathways separated from roads for motor vehicles, fenced fire lanes, and infrequently used maintenance access roads.

Pollution-generating pervious surface (PGPS). Any pervious surface subject to the ongoing use of pesticides and fertilizers or loss of soil, such as lawns and landscaped areas.

Pretreatment. The removal of material such as solids, grit, grease, and scum from flows to improve treatability prior to biological or physical treatment processes; may include screening, grit removal, settling, oil/water separation, or application of a basic treatment BMP prior to infiltration.

Professional engineer (P.E.). A person registered with the state of Washington as a professional engineer.

Project limits. For road projects, the beginning project station to the end project station and from right-of-way line to right-of-way line. For nonroad projects, the legal boundaries of land parcels that are subject to project development (also called the project area perimeter).

Redevelopment. On a site that is already substantially developed (i.e., has 35 percent or more of existing impervious surface coverage), the creation or addition of impervious surfaces; the expansion of a building footprint or addition, or replacement of a structure; structural development including construction, installation, or expansion of a building or other structure; replacement of impervious surface that is not part of a routine maintenance activity; and land-disturbing activities.

Regional detention facility. A stormwater quantity control structure designed to correct surface water runoff problems within a drainage basin or subbasin, such as regional flooding or erosion problems; a detention facility sited to detain stormwater runoff from a number of new developments or areas within a catchment.

Release rate. The computed peak discharge rate in volume per unit time of surface and stormwater runoff from a site.

Replaced impervious surface. Those paved areas that are excavated to a depth at or below the top of the subgrade (pavement repair work excluded) and replaced in kind. The

subgrade is taken to be the crushed surfacing directly below the pavement layer (ACP, PCCP, BST). If the removal and replacement of existing pavement do not go below the pavement layer, as with typical PCCP grinding, ACP planning, or "paver" projects, the new surfacing is not considered replaced impervious surface. For the purpose of conducting a flow control analysis, the representative predeveloped land cover directly below the replaced impervious surface shall be based on the predominant land cover adjacent to the existing paved area.

Riprap. A facing layer or protective mound of rocks placed to prevent erosion or sloughing of a structure or embankment due to flow of surface and stormwater runoff.

Riser. A vertical pipe extending from the bottom of a pond that is used to control the discharge rate from a stormwater facility for a specified design storm.

Road and parking lot-related projects. Pavement projects, including shoulders, curbs, and sidewalks.

Runoff. Rainwater or snowmelt that directly leaves an area as surface drainage.

Runoff treatment. Pollutant removal to a specified level via engineered or natural stormwater management systems.

Runoff treatment BMP. A BMP specifically designed for pollutant removal.

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 aircraft in the event of an undershoot, overshoot, or excursion from the runway.

Sand filter. A manmade depression or basin with a layer of sand that treats stormwater as it percolates through the sand and is discharged via a central collector pipe.

Saturated hydraulic conductivity. The rate of movement of water through a saturated porous medium.

Sensitive area. Any area designated by a federal, state, or local government as having unique or important environmental characteristics that may require additional protective measures (also see *critical areas*). These areas include but are not limited to:

- "Critical habitat" as defined in Section 3 of the federal Endangered Species Act of 1973.
- Designated "critical water resources" as defined in 33 CFR Part 330, Nationwide Permit Program.

- Water bodies designated as "impaired" under the provision of Section 303d of the federal Clean Water Act enacted by Public Law 92-500.
- Sole-source aquifers as defined under the federal Safe Drinking Water Act, Public Law 93-523.
- Wellhead protection zones as defined under WAC 246-290, Public Water Supplies.
- Areas identified in local critical area ordinances or in an approved basin plan.

Sheet flow. Runoff that flows over the ground surface as a thin, even layer, not concentrated in a channel.

Short-circuiting. The passage of runoff through a stormwater treatment facility in less than the design treatment time.

SIC code. Standard industrial classification code developed by the U.S. Department of Commerce to classify types of industry. Now often used by environmental agencies to assign regulatory requirements.

Silt fence. A temporary sediment barrier consisting of a geotextile fabric stretched across and attached to supporting posts, which are entrenched. Adding rigid wire fence backing can strengthen a silt fence.

Slope. Degree of deviation of a surface from the horizontal, measured as a numerical ratio, percent, or in degrees. Expressed as a ratio, the first number is the horizontal distance (run) and the second is the vertical distance (rise); e.g., 2H**:**1V. A 2H**:**1V slope is a 50 percent slope. Expressed in degrees, the slope is the angle from the horizontal plane, so that a 90° slope is vertical (maximum), and a 45° slope is 1H**:**1V (i.e., a 100 percent slope).

Soil amendments. Materials that improve soil fertility for establishing vegetation or permeability for infiltrating runoff.

Sole-source aquifer. An aquifer or aquifer system that supplies 50 percent or more of the drinking water for a given service area and for which there are no reasonably available alternative sources should the aquifer become contaminated, and the possibility of contamination exists. The U.S. Environmental Protection Agency designates sole-source aquifers, and Section 1424(e) of the Safe Drinking Water Act is the statutory authority for the Sole-Source Aquifer Protection Program.

Source control. A structure or operation intended to prevent pollutants from coming into contact with stormwater, either through physical separation of areas or through careful management of activities that are sources of pollutants.

- *Structural source control BMPs* are physical, structural, or mechanical devices or facilities intended to prevent pollutants from entering stormwater.
- *Operational BMPs* are nonstructural practices that prevent or reduce pollutants entering stormwater.

Spillway. A passage such as a paved apron or channel carrying surplus water over or around a dam or similar obstruction; an open or closed channel used to convey excess water from a reservoir. A spillway may contain gates, either manually or automatically controlled, to regulate the discharge of excess water.

Steep slope. A slope of 40 percent gradient or steeper with a vertical elevation change of at least 10 feet.

Stopway (SWY). A defined rectangular surface beyond the end of a runway prepared or suitable for use in lieu of runway to support an aircraft without causing structural damage to the aircraft during an aborted takeoff.

Swale. A natural depression or shallow drainage conveyance with relatively gentle side slopes, generally with flow depths less than 1 foot, used to temporarily store, route, or filter runoff.

Taxiway Safety Area (TSA). A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an aircraft unintentionally departing the taxiway.

Threshold discharge area (TDA). An on-site area draining to a single natural discharge location or multiple natural discharge locations that combine within ¼ mile downstream (as determined by the shortest flow path).

Total Maximum Daily Load (TMDL) – water cleanup plan. A calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL (also known as a water cleanup plan) is the sum of allowable loads of a single pollutant from all contributing point sources and nonpoint sources. The calculation must include a margin of safety to ensure that the water body can be used for the purposes the state has designated. The calculation must also account for seasonal variation in water quality. Water quality standards are set by states, territories, and tribes. They identify the uses for each water body: for example, drinking water supply, contact recreation (such as swimming), and aquatic support (such as fishing) and the scientific criteria to support each use. The federal Clean Water Act, Section 303, establishes the water quality standards and TMDL programs.

Touchdown. Section at the end of the runway where aircraft tires first meet the runway.

Trash rack. A structural device used to prevent debris from entering a spillway or other hydraulic structure.

Treatment train. A combination of two or more treatment facilities connected in series.

Underdrain. Plastic pipes with holes drilled through the top, installed on the bottom of an infiltration facility, that are used to collect and remove excess runoff.

Vegetated filter strip. A facility designed to provide runoff treatment of conventional pollutants (but not nutrients) through the process of biofiltration.

Wildlife hazard assessment. A wildlife hazard assessment, identified as an ecological study in FAA Title 14 Code of Federal Regulations, part 139.337(a), is conducted by a wildlife damage management biologist when any of the following events occurs on or near the airport:

- An air carrier aircraft experiences multiple wildlife strikes;
- An air carrier aircraft experiences substantial damage from striking wildlife;
- An air carrier aircraft experiences an engine ingestion of wildlife; or
- Wildlife of a size, or in numbers, capable of causing an event described in (1), (2), or (3) (above) is observed to have access to any airport flight pattern or aircraft movement area.

The assessment provides the scientific basis for the development, implementation, and refinement of a wildlife hazard management plan, if needed. Although parts of the wildlife hazard assessment may be incorporated directly in the wildlife hazard management plan, they are two separate documents.

Wildlife hazard management plan. Pending results and approval of a wildlife hazard assessment, an airport may be required to produce a wildlife hazard management plan. This is a document that addresses the specific issues/requirements prescribed in the FAA Title 14 Code of Federal Regulations, part 139.337. A summary of the requirements for a wildlife hazard management plan can be found at http://www.faa.gov/airports_airtraffic/airports/regional_guidance/central/airport_safety/part139/best_practice/wildlife/media/Summary_Wildlife_Management.pdf.

Water cleanup plan. See *total maximum daily load*.

Watershed. A geographic region within which water drains into a particular river, stream, or body of water. Watersheds can be as large as those identified and numbered by the state of Washington as water resource inventory areas (WRIAs), defined in WAC 173-500.