



Chapter Eleven: Natural Environment

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Community Vision on Natural Environment

The City of Airway Heights is a community whose residents recognize the importance of maintaining open spaces within its boundaries for preserving the health, safety, and general welfare of the community. Networks of open spaces provide recreational opportunities, storm water management capabilities and wildlife habitat corridors.

Overriding Goal of Natural Environment

Protect and preserve critical areas, resource lands, and other environmentally sensitive areas by making land use decisions reflect land limitations specific to each area, minimizing negative impacts to the natural environment, ensuring preservation of human health, safety, welfare and general quality of life for the community.

Purpose and Intent

This Chapter explores the City's natural environment and growth, and the community's overall quality of life.

Natural Environment Issues and Goals

The City of Airway Heights continues to work towards incorporating the natural environment into the community and protecting the quality of water and air. Table 11.1 highlights the issues affecting the City and the goals established to address those issues.

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Table 11.1
Natural Element Goals, Policies and Implementation Programs

Goal	Policy	Implementing Program
Maintain networks of open space for wildlife habitat and movement corridors, ensuring adequate natural open spaces exist within the City.	Establish mechanisms to preserve and protect wildlife corridors within the City.	Encourage participation in the Backyard Wildlife Sanctuary program from Washington State Department of Fish and Wildlife.
Avoid negative impacts to aquifer quality.	Consider strategies to limit risk to aquifer contamination and conserve the water resource.	Maintain a wellhead protection program.
		Draft regulations to protect the aquifer recharge areas.
		Develop low impact development practices
	Conserve the water resource	Develop an educational program to teach aquifer protection.
		Maintain a water education program.
		Develop regulations that encourage low impact development practices.
Participate in regional air quality programs.	Follow guidelines from the Spokane County Air Pollution Control Authority	Develop incentives for projects that re-use wastewater.
		Identify sustainable levels of water usage.
Work to preserve resource lands that have been identified as having long-term commercial significance.	Protect resource lands from development incompatible with activities typically associated with resource land use.	Participate in regional efforts to maintain or improve air quality.
Work to protect and preserve areas identified as critical areas	Use best available science to identify, designate and regulate critical areas as defined in the Growth Management Act.	Establish a method for advising developers and potential buyers of property near resource activities of potential conflicts.
	Balance the rights of property owners while protecting the functions and values of all critical areas.	Develop a critical areas ordinance that utilizes best available science.
		Establish provisions that allow for some relief for properties that are severely affected by critical area regulations.

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Existing Environmental Conditions

Critical Areas

This section identifies areas in need of special consideration during the land use planning process given their distinctive environmental characteristics. These areas are designated as *critical* because in their natural state they possess unique, fragile, and valuable environmental and ecological processes or resources making them vulnerable to degradation as a result of development and other human influences. The State of Washington identifies five primary types of critical areas requiring consideration and protection, although a community is not limited to these five: 1) aquifer recharge areas; 2) fish and wildlife habitat areas; 3) frequently flooded areas; 4) geologically hazardous areas; and 5) wetlands.

Preserving and protecting critical areas from negative development impacts enhances the public health, safety and welfare and protects private property from natural disasters. The City of Airway Heights has adopted development regulations requiring certain precautions be taken during development adjacent to areas deemed *critical* by the City. The regulations require special review before any critical area can be altered. Certain site specific situations may not permit alteration or development to occur.

The City of Airway Heights contains few areas that are considered critical areas. The community's relatively flat topography and lack of surface water limits environmental conditions that might normally exist in other communities. It is important to identify and recognize those critical areas that do exist in the community, so that they may be preserved and protected.

Aquifer Recharge Areas

Aquifer recharge areas have a critical recharge effect on aquifers used for potable water, and where that aquifer, as a source of drinking water, is vulnerable to contamination. Aquifer protection is essential to public health and safety of communities dependent on aquifers for drinking water because once groundwater is contaminated it becomes difficult and costly, if not impossible, to clean up.

In February 1992, Fairchild Air Force Base conducted a study on the aquifer below the City and completed its Remedial Investigation Report for the Craig Road Landfill. The study included the installation of 42 monitoring wells and 39 boreholes in and around the landfill area. Initially, research focused on the quality of the limited amount of groundwater found in the thin veneer of alluvium covering the deeper basalt aquifer. Eventually, research focused on the deeper aquifer. The City of Airway Heights has a total of six water supply wells, and its two main production wells are located in the alluvial channel identified in this study. These two wells provide approximately 70 percent of the water supply to the community.

This aquifer is the City's primary source of drinking water and it is crucial that a high level of water quality be maintained. In the past, contaminants such as heavy metals, tri-chloroethylene, and volatile organic compounds have been introduced to the aquifer in levels under the regulated amounts. This has been attributed to industrial operations of the City, as well as operations of FAFB. The historical, wide use of septic tanks in the community has also contributed to the introduction of organic compounds from wastewater into the aquifer.

The City's critical areas ordinance should address development occurring over the aquifer and within the aquifer recharge area. Also of importance with any development occurring within the aquifer recharge area is a site analysis that establishes water quality baselines, limits the amount of impervious surfaces on the site, and includes best management practices in the design, construction, and operation of the development.

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Mining operations occurring within the City should be required to maintain the highest possible water quality standards, as well as be accountable for any detriment to water quality resulting from their operations. Also of importance to maintaining water quality, is addressing the City's sewer system, its available capacity, and the continued transition of existing septic tanks to sewer service.

Fish and Wildlife Habitat Areas

Fish and wildlife habitat areas are those areas necessary for the survival of endangered, threatened, rare, sensitive, or monitored species.

The City has no surface waters; therefore fish habitat is of minimal concern. Wildlife habitat and wildlife species are of concern to the City. Basic elements of ecology and ecological function of the physical landscape are important to providing, enhancing, and protecting wildlife habitat. This involves, but is not limited to preserving existing habitat corridors and establishing new corridors, minimizing fragmentation to habitat patches, and minimizing edge effects where development abuts habitat areas.

Frequently Flooded Areas

Frequently flooded areas are those areas found within the flood plain subject to a 1 percent or greater chance of flooding in any given year. Frequently flooded areas perform important hydrologic functions and may present a risk to people and property. Classifications of frequently flooded areas include, at a minimum, the 100 year flood plain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

The City of Airway Heights has no frequently flooded areas within its boundaries due the City's lack of shorelines and accompanying surface waters, such as lakes, rivers, streams, and creeks.

Geologically Hazardous Areas

Geologically hazardous areas are those areas that may not be suited to development consistent with public health, safety, or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geological events. Geologically hazardous areas include areas where erosion, landslide, seismic, mine, or where volcanic hazards exist.

Within the City of Airway Heights, there are minimal areas of geological hazardous potential. The City is subject to wind erosion of exposed soils. All soils and bare rock surfaces are subject to the natural erosive forces of chemical, weathering, and physical erosion. Erosion is the natural process of wearing away the land as a result of water and wind, and historically glacial scouring. Wind erosion occurs when the wind blows dust from exposed soils, due to excavation and construction activities, as well as farming activities and where vegetative cover has been removed leaving the soil exposed. Spokane County experiences significant air quality problems throughout the year as a result of dust and dust storms, and Airway Heights is no exception.

The potential for landslides in Airway Heights is minimal, given the City's flat topography and no naturally occurring steep slopes. Typically, slopes greater than 15 percent are considered as landslide potential since landslides are based on slope stability. Slope stability is dependent on the interaction of many factors, such as soils, climate, underlying geology, vegetative cover, proximity to surface water, ground water content, and proximity to earthquake fault activity. Generally, when one or more of these factors are altered unstable slope conditions emerge, and when these factors are altered by development activity landslide potential is accelerated.

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Wetland Areas

Wetlands are defined as areas inundated or saturated by surface and/or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soils. Wetlands typically include swamps, marshes, bogs, and similar areas, however, they do not include wetlands intentionally created from non-wetland sites including, but not limited to, irrigation and drainage ditches, grassy swales, canals, detention facilities, farm ponds, or landscape amenities. Wetlands created from non-wetland areas as a result of mitigation due to the conversion of naturally occurring wetlands to other uses may be considered a wetland under certain conditions.

Studies done for the National Wetlands Inventory also indicated no wetlands present within the community.

Natural Resource Lands

This section addresses the importance of natural resource lands. The State requires that jurisdictions consider these resource lands in land use planning. Resource lands are identified in one of three categories; agricultural lands, forestlands, or mineral resource lands. The State requires resource lands with commercial significance be protected and preserved. To facilitate this effort, the City will consider regulations related to resource land protection requiring certain precautions be taken during development adjacent to those areas.

Agricultural Lands

Agricultural lands are those lands not characterized by urban growth and those of long-term significance for the commercial production of horticultural, viticulture, floricultural, dairy, apiary, vegetable, and animal products, or the food and fiber for the consumption of livestock, or other products and processes normally associated with farming.

Within the City, agricultural activity has been limited to very few acres, and there are currently no parcels of land zoned agricultural within the City limits. Therefore, there is little agricultural production on the City's agricultural lands and no long-term commercial significance. The City recognizes these lands are socially and culturally important to the community, and need some degree of protection for their preservation.

Forest Lands

Forest lands are those lands not characterized by urban growth and of long-term significance for the commercial production of timber and other wood fiber normally associated with forestry practices. The City has no forestlands within, or adjacent to, its boundaries.

Mineral Resource Lands

Mineral resource lands are those lands not characterized by urban growth and of long-term significance for the production or extraction of aggregate and other mineral substances, including sand, gravel, and other valuable metals.

Mining activities of any long-term commercial significance within the City have been limited to sand and gravel operations. To date, no other significant resources have been identified in the City, but careful consideration is needed when addressing mining operations so that adjacent land uses are not severely impacted by current and future mining operations.

It is also important to consider the value of new mineral extraction, as well as alternative land uses in and adjacent to mining areas. Re-use of mining sites should also be addressed so that compatibility is maintained with surrounding land uses once mining operations cease.