

ENVIRONMENT

July 28, 2010

Source: Fairfax County Comprehensive Plan, 2007 Edition Policy Plan
Environment, Amended through 2-25-2008

INTRODUCTION

This element provides guidance for achieving a balance between the need to protect the environment, while planning for the orderly development and redevelopment of the County. The objectives and policies listed below have been designed to help decision makers implement policies and regulations regarding the use of land that will conserve and restore a legacy of natural resources.

In order to describe the environmental issues that are relevant to the development and redevelopment of land in Fairfax County and to formulate policies to address those issues, it is appropriate to review the context of environmental planning within this largely urban and suburban community. The expectation for the preservation, management, and rehabilitation of meaningful components of the County's environmental heritage should be high, given the large number of people who live here and the importance of local environmental resources to the quality of life.

BOARD OF SUPERVISORS GOALS

Fairfax County has adopted two goals, "Environmental Protection" and "Open Space" that relate to conservation of the natural environment. These Goals read as follows:

- **Environmental Protection** - The amount and distribution of population density and land uses in Fairfax County should be consistent with environmental constraints inherent in the need to preserve natural resources and to meet or exceed federal, state and local standards for water quality, ambient air quality and other environmental standards. Development in Fairfax County should be sensitive to the natural setting, in order to prevent degradation of the County's natural environment.
- **Open Space** - Fairfax County should support the conservation of appropriate land areas in a natural state to preserve, protect and enhance stream valleys, meadows, woodlands, wetlands, farmland, and plant and animal life. Small areas of open space should also be preserved in already congested and developed areas for passive neighborhood uses, visual relief, scenic value, and screening and buffering purposes.

COUNTYWIDE OBJECTIVES AND POLICIES

Environmental concerns have been grouped into broad categories for consideration:

- Environmental Pollution
- Environmental Hazards
- Environmental Resources
- Resource Conservation And Green Building Practices

ENVIRONMENTAL POLLUTION

Air Quality

Establish land use patterns and transportation facilities that encourage the use of public transportation and reduce trip lengths to reduce emissions of oxides of nitrogen, carbon monoxide, and hydrocarbons from automobiles. Consistent with other Land Use and Transportation objectives, support and encourage the following during the reviews of development proposals, particularly for proposals in mixed use centers:

- The concentration of growth in mixed-use, transit-oriented centers in a manner that will optimize the use of transit and non-motorized trips and minimize vehicular trips and traffic congestion.
- In mixed-use developments, the provision and orientation of working, shopping, and recreational opportunities in close proximity to residences in a manner that will minimize motor vehicle use.
- The provision of facilities to support transit use (e.g., bus shelters, park-and-ride lots).

Implement transportation strategies that reduce auto travel, minimize dependence on single-occupant automobiles and improve traffic flow, thereby reducing auto emissions.

- Development of parking management strategies in transit station areas to encourage transit and high-occupancy vehicle use and minimize single occupant vehicle trips.
- Establishment of and participation in transportation management associations.
- The location, design and construction of trails, dedicated bicycle lanes and crosswalks to facilitate non-motorized transportation among residential uses, transit facilities, commercial areas, public facilities and recreational opportunities.

Water Quality

Streams

The core of Fairfax County's Environmental Quality Corridor (EQC) system is its stream valleys. The protection and restoration of the ecological quality of streams is important to the conservation of ecological resources in Fairfax County. Therefore, efforts to minimize adverse impacts of land use and development on the County's streams should be pursued.

In order to protect the Chesapeake Bay and other waters of Virginia from degradation resulting from runoff pollution, the Commonwealth has enacted regulations requiring localities within Tidewater Virginia (including Fairfax County) to designate "Chesapeake Bay Preservation Areas", within which land uses are either restricted or water quality measures must be provided. Fairfax County has adopted a Chesapeake Bay Preservation Ordinance pursuant to these regulations.

Resource Protection Areas

The more restrictive type of Chesapeake Bay Preservation Area is known as the "Resource Protection Area (RPA)." With a few exceptions (e.g. water wells, recreation, infrastructure

improvements, "water dependent" activities, and redevelopment), new development is prohibited in these areas. In Fairfax County, RPAs include the following features:

- water bodies with perennial flow
- tidal wetlands
- tidal shores
- nontidal wetlands contiguous with and connected by surface flow to tidal wetlands or water bodies with perennial flow
- a buffer area not less than 100 feet in width around the above features
- as part of the buffer area, any land within a major floodplain.

In order to augment the EQC system, encourage protection of stream channels and associated vegetated riparian buffer areas along stream channels upstream of Resource Protection Areas (as designated pursuant to the Chesapeake Bay Preservation Ordinance) and Environmental Quality Corridors. To the extent feasible in consideration of overall site design, stormwater management needs and opportunities, and other Comprehensive Plan guidance, establish boundaries of these buffer areas consistent with the guidelines for designation of the stream valley component of the EQC system as set forth in Objective 9 of this section of the *Policy Plan*. Where applicable, pursue commitments to restoration of degraded stream channels and riparian buffer areas.

Resource Management Areas

The other, less sensitive category of land in the Preservation Areas is called the "Resource Management Area (RMA)." Development is permitted in RMAs as long as it meets water quality goals and performance criteria for these areas. These goals and criteria include stormwater management standards, maintenance requirements and reserve capacity for on-site sewage disposal facilities, erosion and sediment control requirements, demonstration of attainment of wetlands permits, and conservation plans for agricultural activities. In Fairfax County, RMAs include any area that is not designated as an RPA.

ENVIRONMENTAL HAZARDS

- Soils - Ensure that new development either avoids problem soil areas, or implements appropriate engineering measures to protect existing and new structures from unstable soils.
- Flood Impacts - Minimize the exposure of new development to the potential of flood impacts.

ENVIRONMENTAL RESOURCES

The third category of environmental issues addresses the protection, preservation, and restoration of environmental resources. "Open space" land, as distinguished from developed land, includes parks, conservation areas, private open space, and vacant land.

Identify, protect and enhance an integrated network of ecologically valuable land and surface waters for present and future residents of Fairfax County. Lands may be included within the EQC system if they can achieve any of the following purposes:

- Habitat Quality
- "Connectedness"

- Aesthetics
- Pollution Reduction Capabilities

The stream valley component of the EQC system shall include the following elements:

- All 100 year flood plains as defined by the Zoning Ordinance;
- All areas of 15% or greater slopes adjacent to the flood plain, or if no flood plain is present, 15% or greater slopes that begin within 50 feet of the stream channel;
- All wetlands connected to the stream valleys; and
- All the land within a corridor defined by a boundary line which is 50 feet plus 4 additional feet for each % slope measured perpendicular to the stream bank. The % slope used in the calculation will be the average slope measured within 110 feet of a stream channel or, if a flood plain is present, between the flood plain boundary and a point fifty feet up slope from the flood plain. This measurement should be taken at fifty foot intervals beginning at the downstream boundary of any stream valley on or adjacent to a property under evaluation.

Tree Cover

Conserve and restore tree cover on developed and developing sites. Provide tree cover on sites where it is absent prior to development.

- Protect or restore the maximum amount of tree cover on developed and developing sites consistent with planned land use and good silvicultural practices.
- Require new tree plantings on developing sites which were not forested prior to development and on public rights of way.
- Use open space/conservation easements as appropriate to preserve woodlands, monarch trees, and rare or otherwise significant stands of trees, as identified by the County.

RESOURCE CONSERVATION AND GREEN BUILDING PRACTICES

The energy shortage in the United States in the 1970s highlighted the finite nature of our natural resources. Since the 1970s, efforts have been pursued at the federal level to enhance energy efficiency and the efficient use of water resources. While such efforts are best addressed at the federal level, local efforts to conserve these resources should be encouraged.

The “green building” concept provides a holistic approach to the reduction of adverse environmental impacts associated with buildings and their associated facilities and landscapes.

Design and construct buildings and associated landscapes to use energy and water resources efficiently and to minimize short- and long-term negative impacts on the environment and building occupants.

Ensure that zoning proposals for nonresidential development and zoning proposals for multifamily residential development of four or more stories within the Tysons Corner Urban Center, Suburban Centers, Community Business Centers and Transit Station Areas incorporate green building practices sufficient to attain certification through the LEED program or its equivalent.

